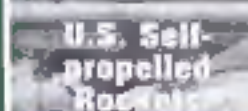


Allied-Axis

THE PHOTO JOURNAL OF THE SECOND WORLD WAR



U.S. M3 Lee
Medium Tank



U.S. Self-
propelled
Rocket



Sturmgeschütz at the front



German SdKfz. 250 Halftrack
German SS(1) Medium Tank



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PzKpfw 35(t)

The Czechoslovak armament industry was responsible for some fairly innovative tank designs in the period between the world wars. They openly courted foreign contracts and continually developed several tank designs in the early thirties. One of these designs was the LT VZ.35. Developed to meet the need for a sound medium tank design, its development history is colored with intrigue between the various parties involved. Testing and manufacturing difficulties further clouded its development and the tank was actually being delivered to the troops while these problems were occurring. Most of these difficulties were eventually worked out and the tanks were urgently ordered to comply with the needs of the Czechoslovak Army. The political situation with Germany was rapidly deteriorating and the army had called for a general mobilization in September of 1939. At the time, the LT VZ.35 was also being manufactured for the Rumanian army under the designation R2. Many of these tanks were confiscated by the Czechoslovak Army just prior to the Munich agreement. As the Munich agreement effectively rendered the Army useless, they lost interest in the further development and deployment of the LT VZ.35. After the annexation and establishment of the "protectorate," all the Czechoslovak Army's tanks were scheduled to be integrated into the German Wehrmacht. This integration began in the spring of 1939 and some 244 LT VZ.35 were transferred to German Army control. Several changes were made to the vehicle for German service, the most significant of which was the addition of a loader for the main gun. This required modification of the internal ammunition stowage. Other small changes included the addition of a Notek light, the addition of a Fu5



radio set and the installation of a Bosch magneto. The tank was re designated PzKpfw 35(t). The main armament was the 3.7cm anti-tank gun and this was supplemented with two 7.92mm machineguns. By the start of the Polish campaign in September 1939, both the 11th Panzer Regiment and the 65th Panzer Abteilung were fully equipped with the new tank. The 11th and the 65th composed the 1st

Leichte Division and they fought through the Polish campaign and lost a total of seven tanks to enemy action, only one of which was later declared a total loss. Prior to the French campaign, the 1st Leichte Division was renamed the 6th Panzer Division. **Above:** This 35(t) of the 6th Panzer Division is believed to be passing through the outskirts of Stonne, France on the way to the open country beyond. (BA)



After May 16th, the 6th was part of the exploitation of a 62-mile gap in the French lines and the flat open country beyond. Their advance continued towards the Oise river and the city of Guise. These two tanks are seen during that phase of the campaign. Both tanks are from the company headquarters, as denoted by the "A" in their tactical numbers. The tank on the left is a Panzerbefehlswagen 35(t)

command tank. This vehicle carried both the Fu5 and the Fu8 radio sets and utilized the large frame antenna on the rear deck. Interestingly, the main gun was replaced with a wooden replica to make room for the additional radios. Both 7.92mm machineguns were retained. The unit "logo" of the 65th Panzer Abteilung can be clearly seen on the turret. (BA)



At the end of May, the 1st Tank Division, with a column of T-34 tanks, moved to the east. This division took no part in the battle of Berlin and then on to East Prussia in May 1945. According to the book *Armata 1945*, it was the 1st Tank Division that took the first Soviet tank to the German capital. The division's tanks were the only ones to see action in the battle of Berlin. The division's tanks were the only ones to see action in the battle of Berlin. The division's tanks were the only ones to see action in the battle of Berlin.



In early June, the XLI Panzer Corps became part of Panzergruppe Guderian. The 6th Panzer Division was sent south to cross the Aisne river and assault units on and along the southern Marne river. The last major objective of the campaign was the capture of the fort at Epinal on the river Mosel. Here, tanks are seen approaching the high ground outside of Epinal on or about June 18th, 1940. (BA)



Left: This vehicle has a rather unique modification to the turret hatch. It appears to have been cut in half and reassembled in some fashion. This modification is not seen in any other photos. (BA) **Right:** This propaganda photo was originally captioned that the "German people have come to release the Baltic Peoples from the Soviet yoke." The photo provides a good look at the left side mounted shovel and the distinctive "double X" insignia of the 6th Panzer Division. (BA)



in 1964, all Air Force Companies supported an infantry attack south of the city of Pleiku on July 6th. The 1st Force Company had six companies of tanks in each of its battalions at this time, but considered the HQ Company as the main force and the second company was the main force. The 1st or Heavy company was composed of 1st and 2nd battalions and they also had tanks in other grades of the attack. These companies and units of equipment located on the back of the tank (B4).

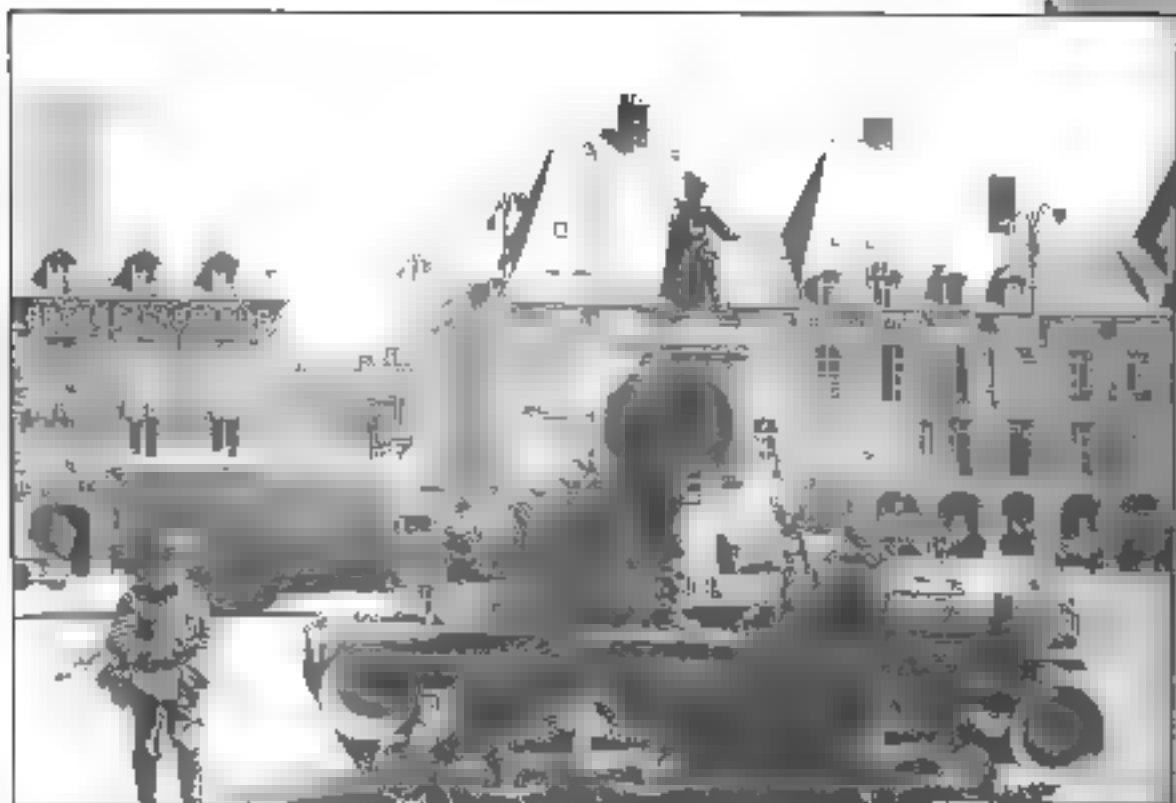




The last combat assignment for the 1st Infantry Division was Operation Wetness in June of 1951. The division crossed the East Prussian border near the town of Tilsa in Lithuania with the objective of moving through the Baltic states and taking the Russian city of Königsberg (the Humberburg). This photo is

believed to have been taken during the second week of the campaign as the division entered Latvia. Many towns and villages greeted the Americans as liberators. Fighting is clearly not on the minds of the crowd, as all of them, except the priest and people outside, all got covered up in blankets as well. (JG)







View of the
Lighthouse
from the
Lighthouse
at the
Point of
View



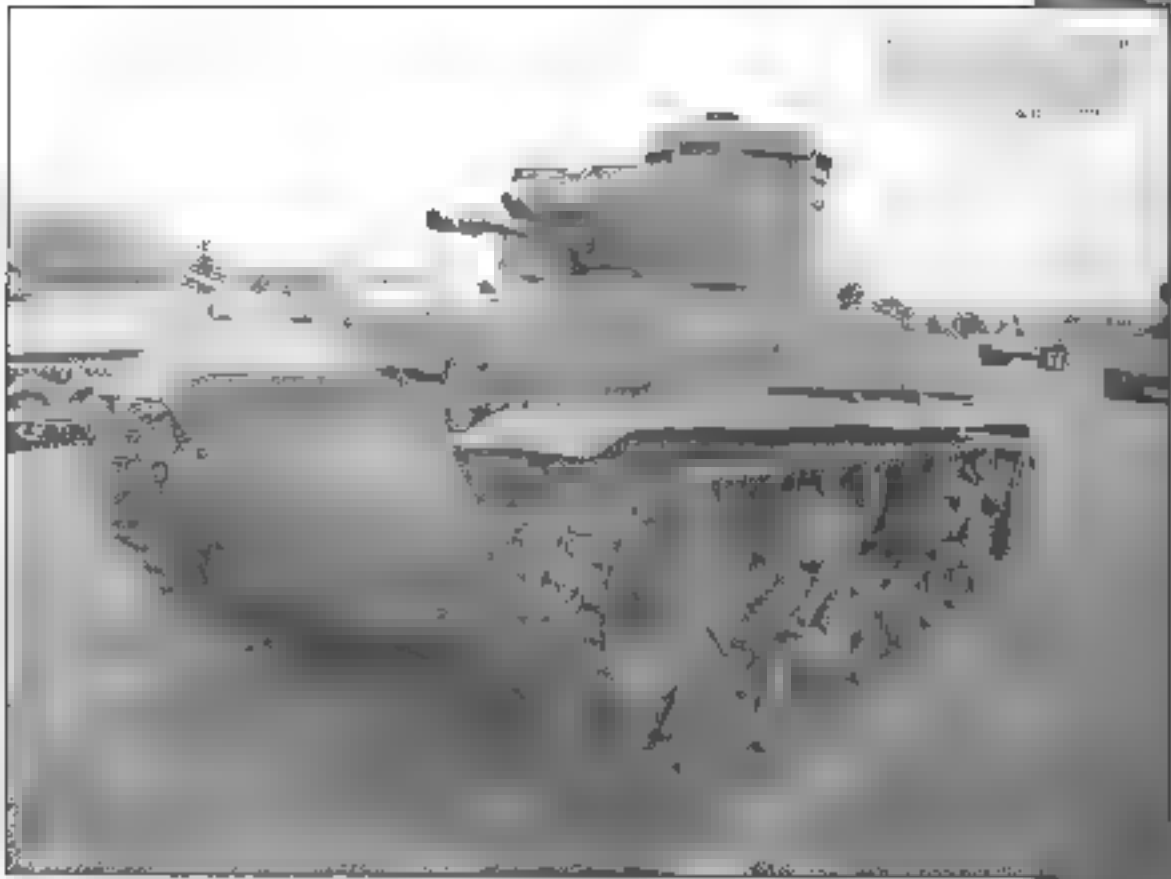
In early July the 6th Panzer Division crossed the Dvina and crossed the so-called "Stalin Line" built by the Russians. This was a series of in-depth fortifications and tank barriers which were poorly organized and improperly defended by the Russians. This 35(t) is seen crossing through one of the tank barriers on July 4th 1941. Riding aboard to support the rapid advance is a heavy MG platoon of the 6th Rifle Brigade. This was part of the 6th Panzer Division's organic infantry component. (BA)





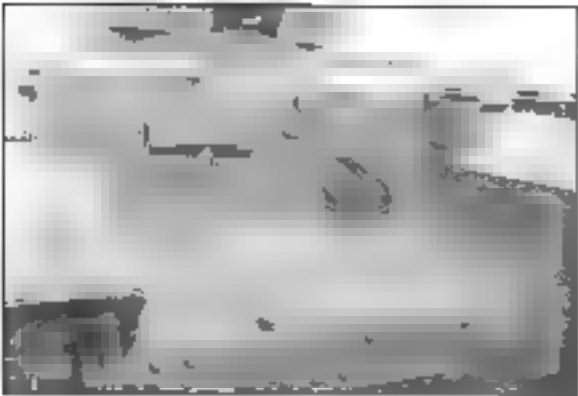
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A black and white photograph of a Soviet T-34 tank, viewed from the side. The tank is positioned diagonally across the frame, facing towards the right. It features a prominent turret with a main gun barrel extending forward. The hull is equipped with a series of road wheels and a continuous track system. The background is a light, hazy landscape, suggesting an outdoor setting. The image has a slightly grainy texture, characteristic of older military photography.



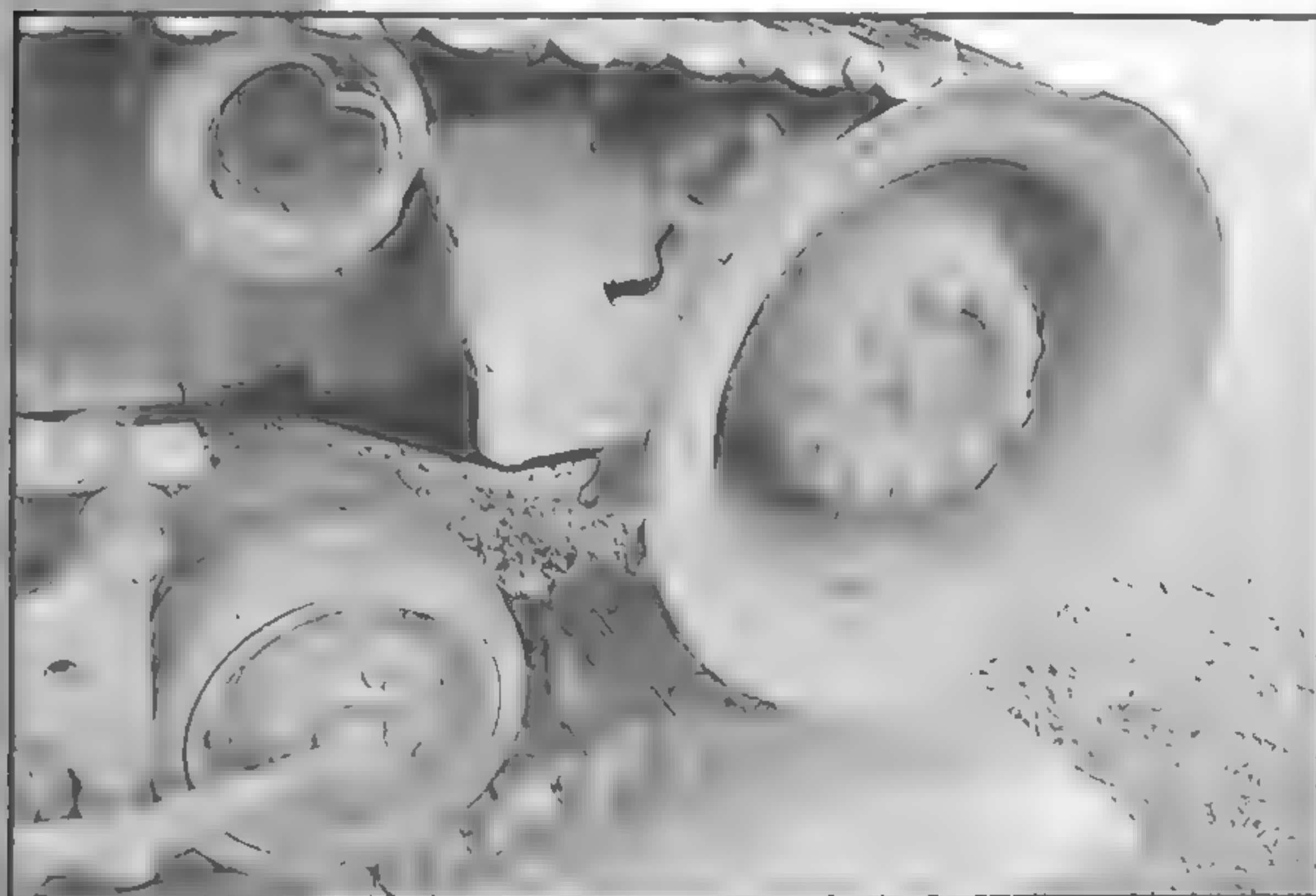
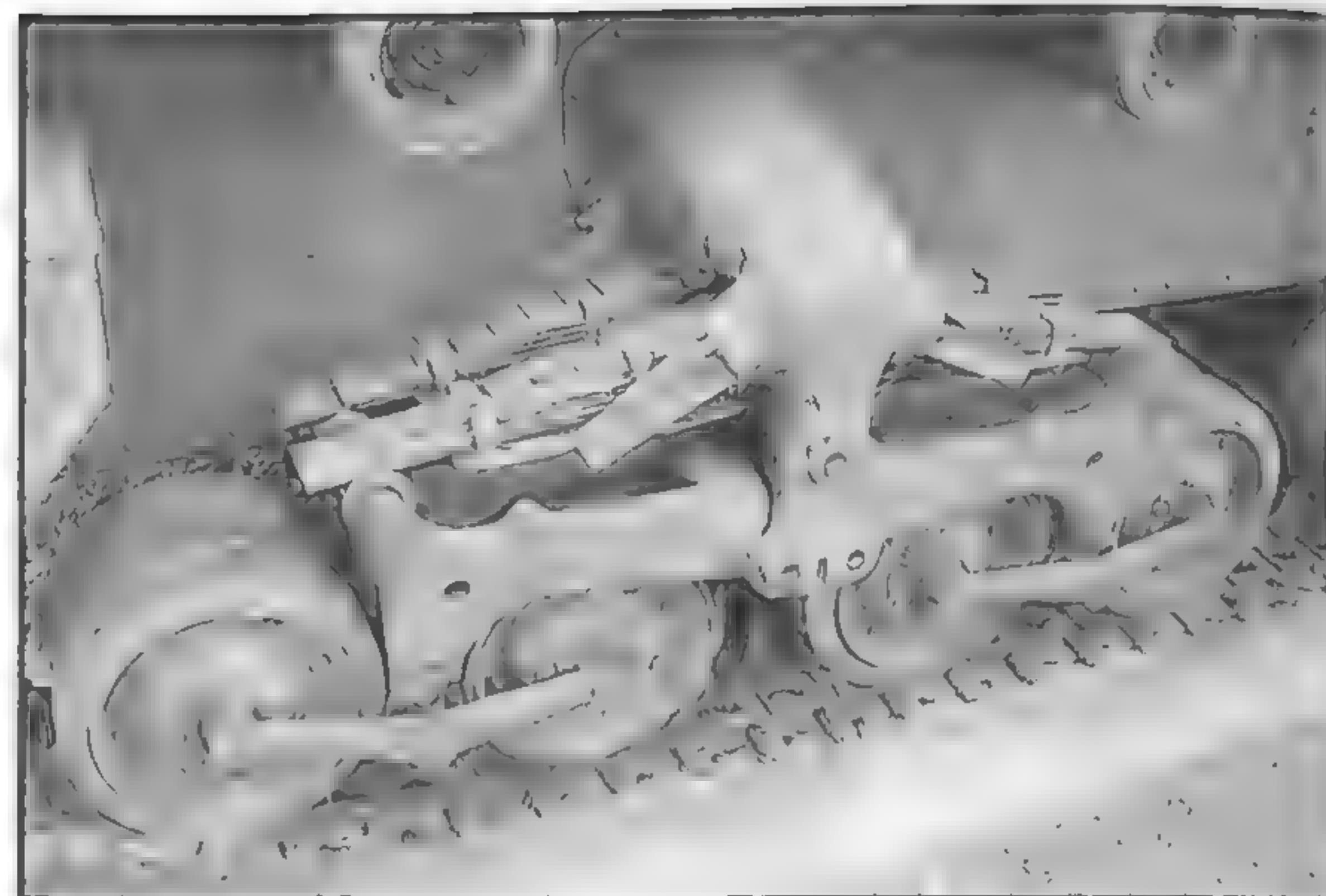
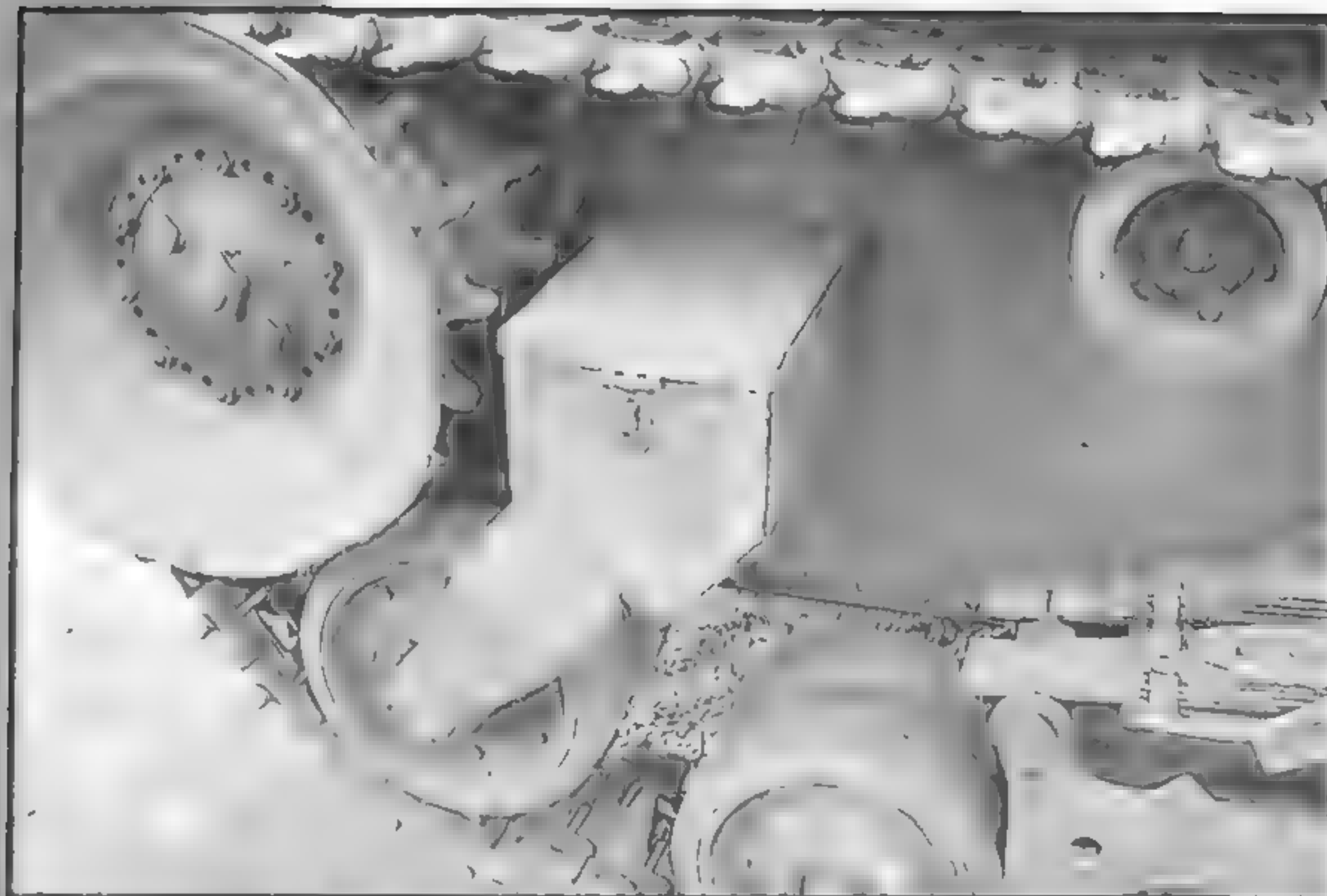


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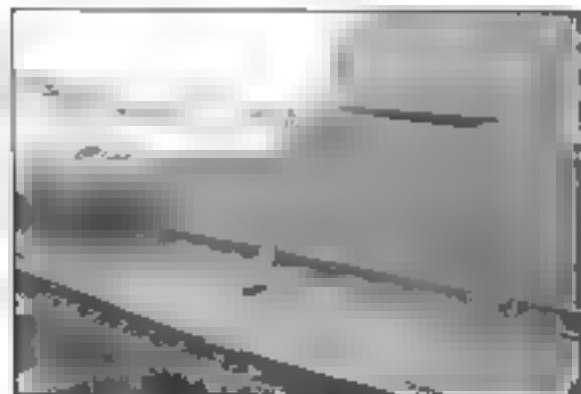
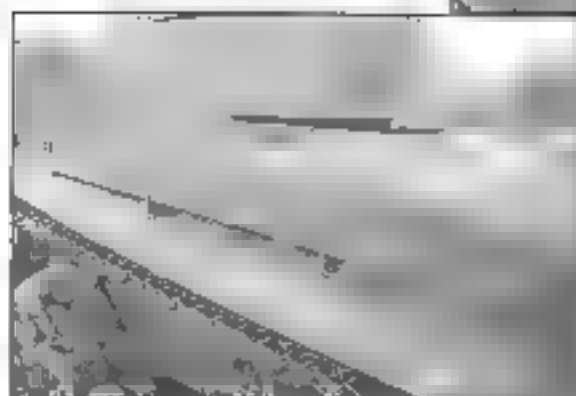
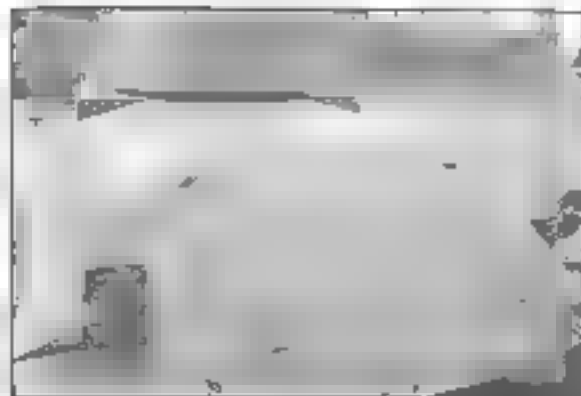
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Top left: The front roadwheel was not sprung and it was installed in a fixed position. The locking box above it held track grousers. These could be installed on the tracks for extra grip in ice or snow. **Top right:** A closer view of the roadwheel frame. Twin sets of leaf springs were used on each frame. **Above**

left: The rear drive sprocket. Each of the two sprockets had 19 teeth and each also had a mud scraper installed, as can be seen in this shot. **Above right:** An overall view of the rear of the tank. The armor on the 35(t) was 8mm thick and the engine hatch itself was 10mm thick.

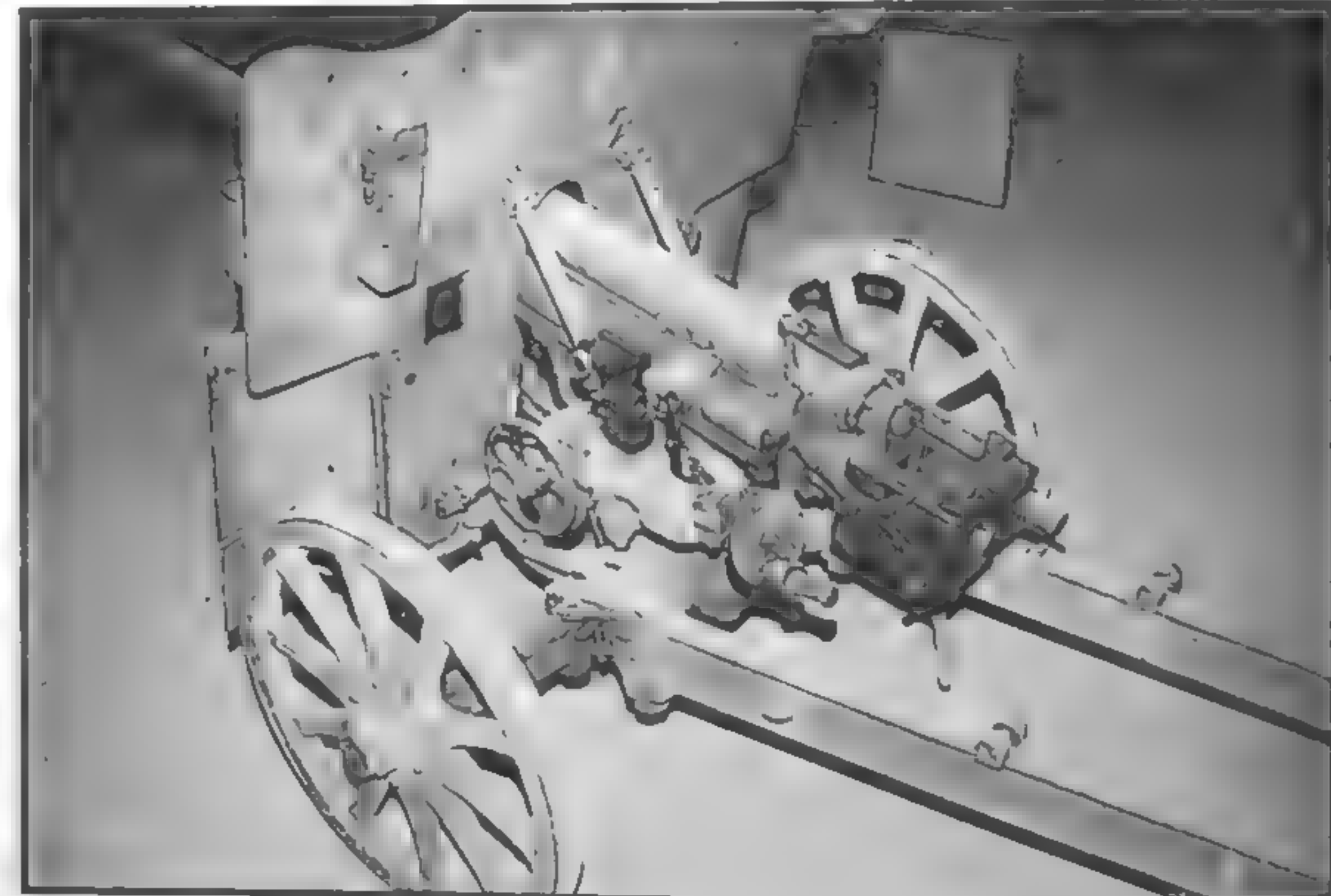


Top Left

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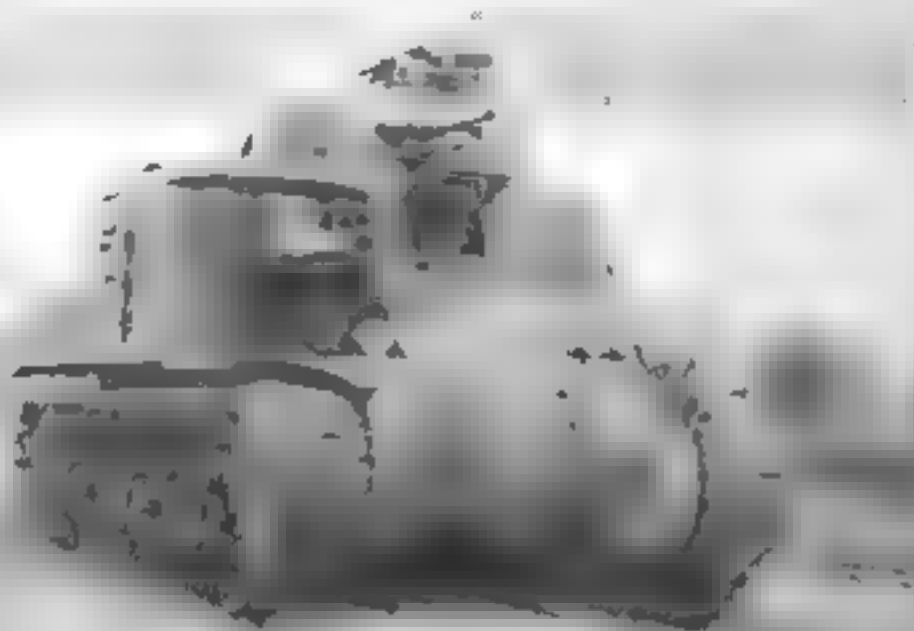
Bottom Left

Bottom Right



Top left: An overall view of the main 3.7cm gun. This weapon was highly effective for its day. It could penetrate up to 45mm of vertical armor at 500 meters and 25mm of 30° armor at 1,000 meters. The weapon utilized a semi-automatic breech mechanism and this allowed it to reach a substantial rate of

fire – up to 15 rounds per minute. **Top right:** The coaxially mounted 7.92-mm machine gun has been removed from the Aberdeen vehicle and a circular panel has been welded in its place. **Above left and right:** two views of the towed version of the 3.7cm gun on its wheeled carriage.



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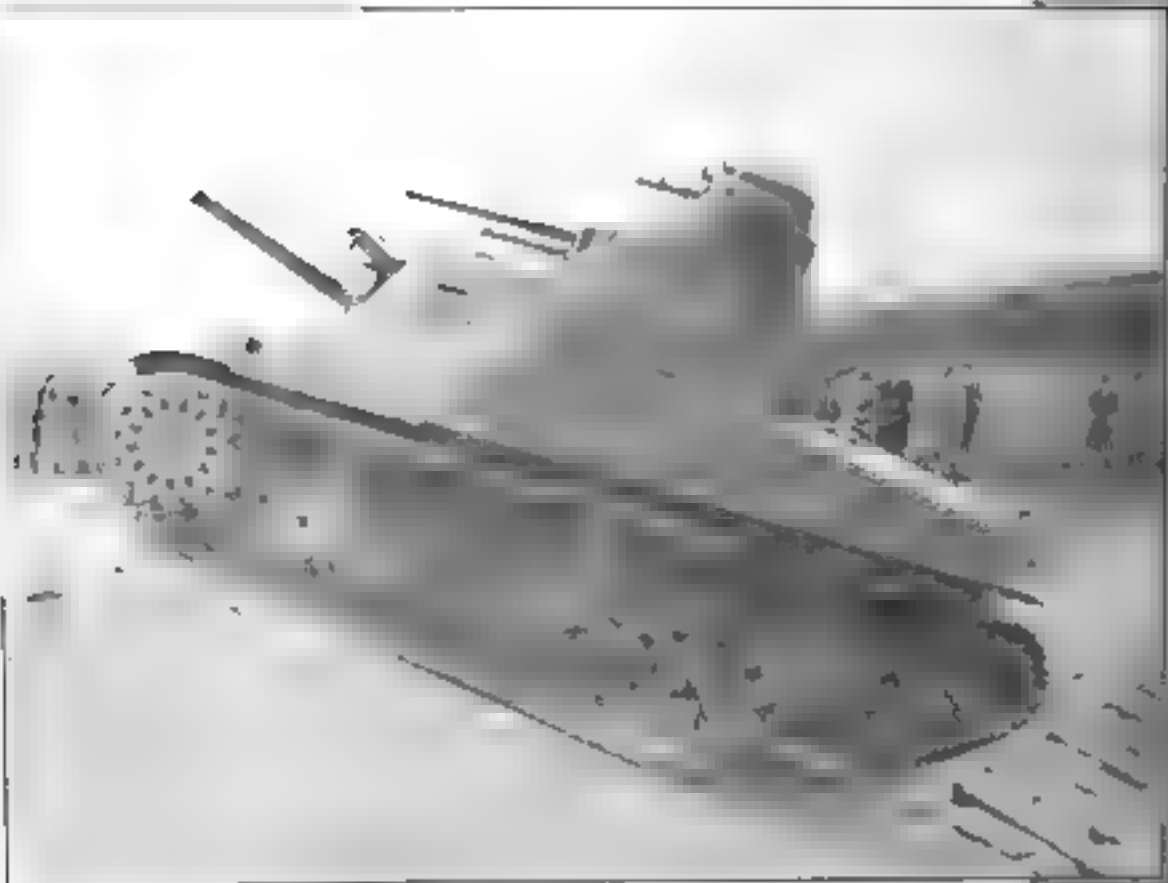
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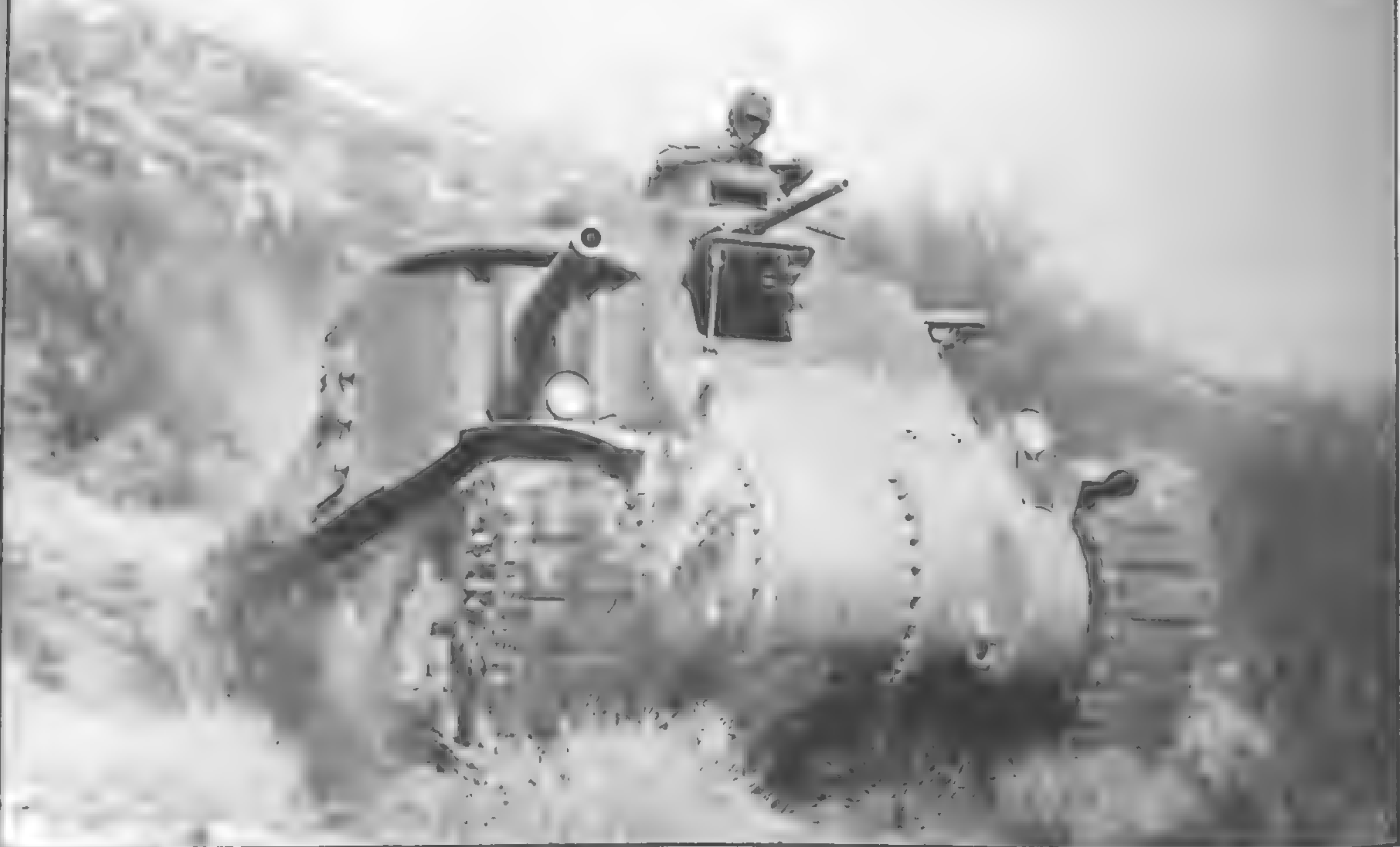
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the T7 was a modified anti-aircraft gun the T6. The second barrel
apparatus below the 37mm gun in the larger turret is actually a coun-
ter weight. This may be a prototype of the Lee since it also does not
have the large boxes which are found on the rear deck of the later version of
the Lee. All these M3's look like they are going through their paces at a test
ground possibly Aberdeen (NARA)





These two shots also depict early models because of the dual .30 caliber machineguns. They are seen during training at the Desert Warfare Center (present day NTC). The M3 Lee was considered as only a training tank by the US Army and any units deployed overseas were to get M4 Shermans as replacements. However, the 1st Armored Division was sent to Europe with some of their original early production M3s and the 2nd Battalion of the 13th Tank Regiment went to North Africa and later the 3rd Battalion. These M3 Lees do not have the counterbalance under the 37mm AT gun. Clearly seen are the other two .30 caliber machineguns. One in the top turret and the coaxial mounted one next to the 37mm gun. (NARA)







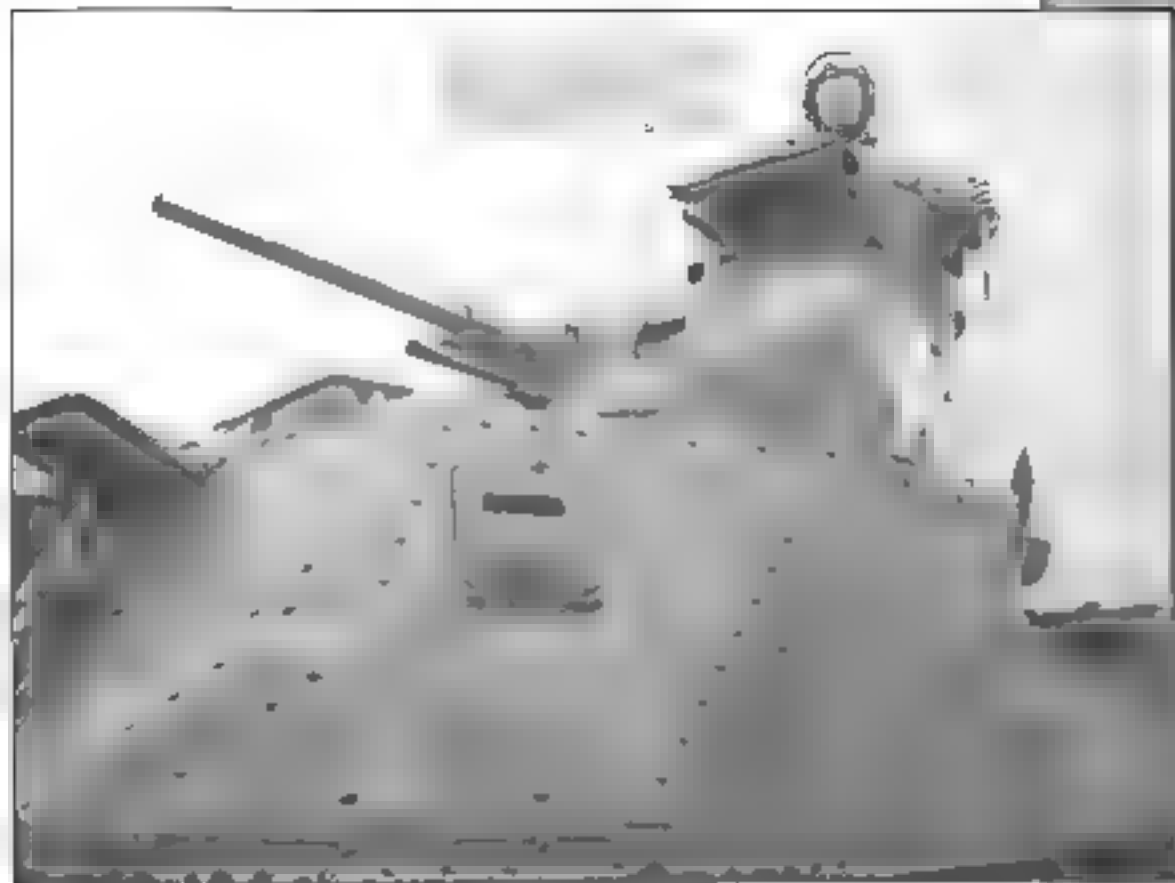


Baseball" is a short barrel early production model M3. The counterweights around the 75mm gun to compensate for the shortened length of the gun can be seen. These counterweights were bolted on items, so they can either be present or not. The top is off the box on the front revealing the spare track links. (NARA)



... model M3 because the right door is not present
... communications port This one has the M3 long barrel 75mm
... seem a factor in assigning the tanks It appears that the
... either the M2 or M3 barrel and the M2 could have or not
... The original T7 gun had a barrel length of 84 inches and
... It was found through use that the gun was not balanced
... necessary to add large counterweights on the end of the barrel A
... which was a lengthened M2, was also used It was 110 63 inch-
... designated the M3 In the original M3 Lee, it seems any one of these
... could be seen (NARA)

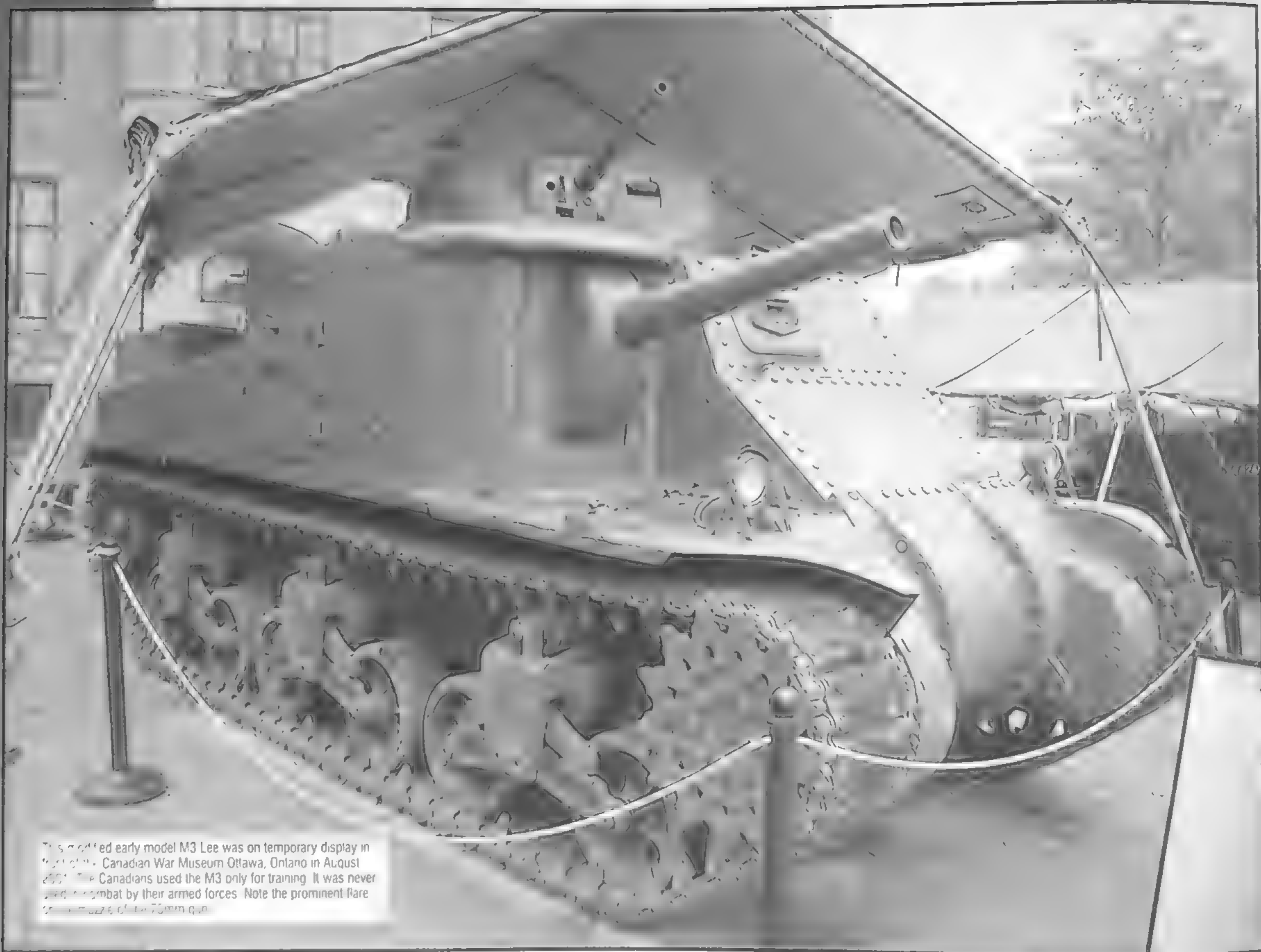






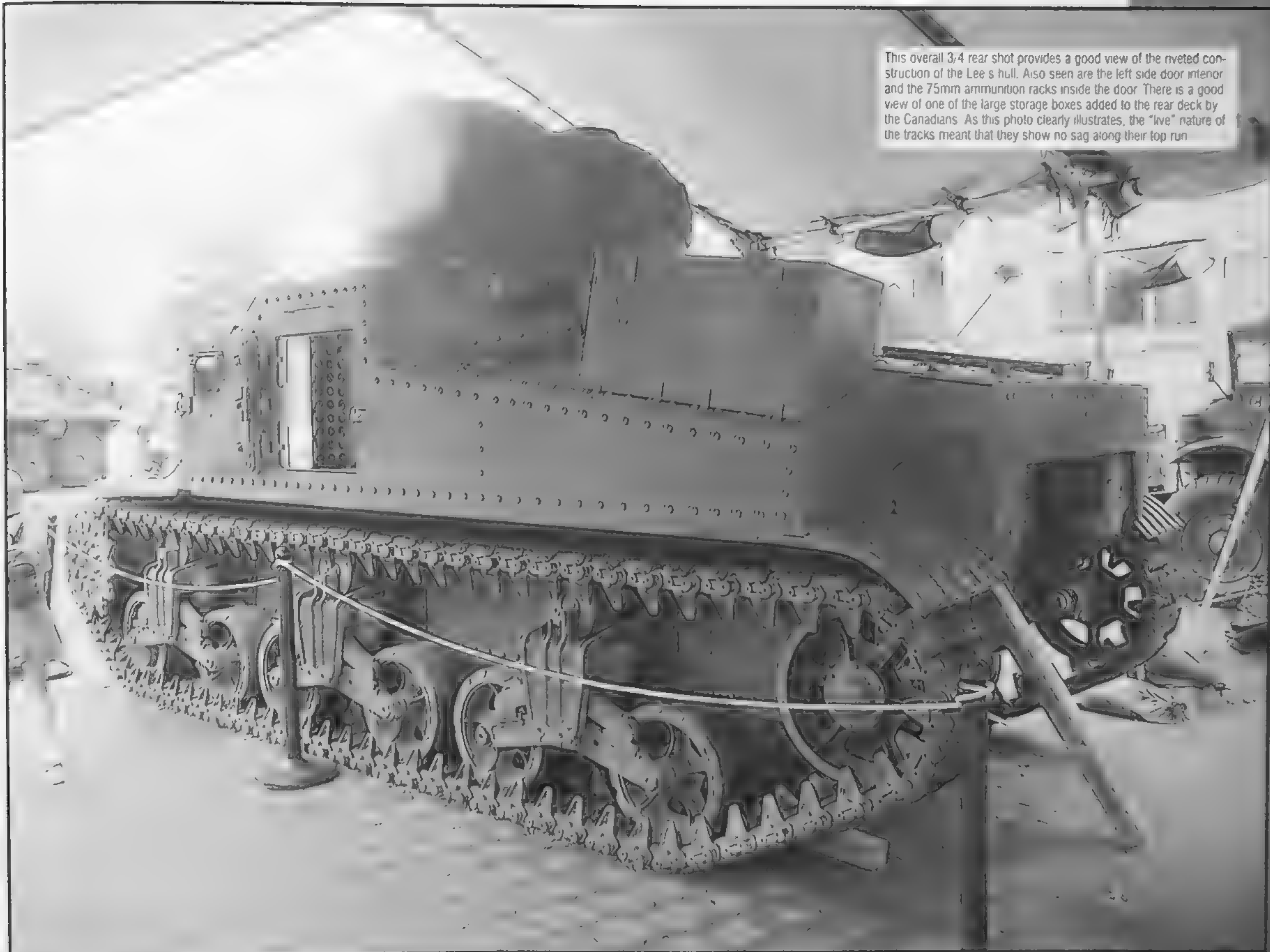
Another late production M3 with the long barrel 75mm gun. Oddly the censor has tried to remove the stars on the turret. This is strange, as one can clearly see it on the other tanks. (NARA)

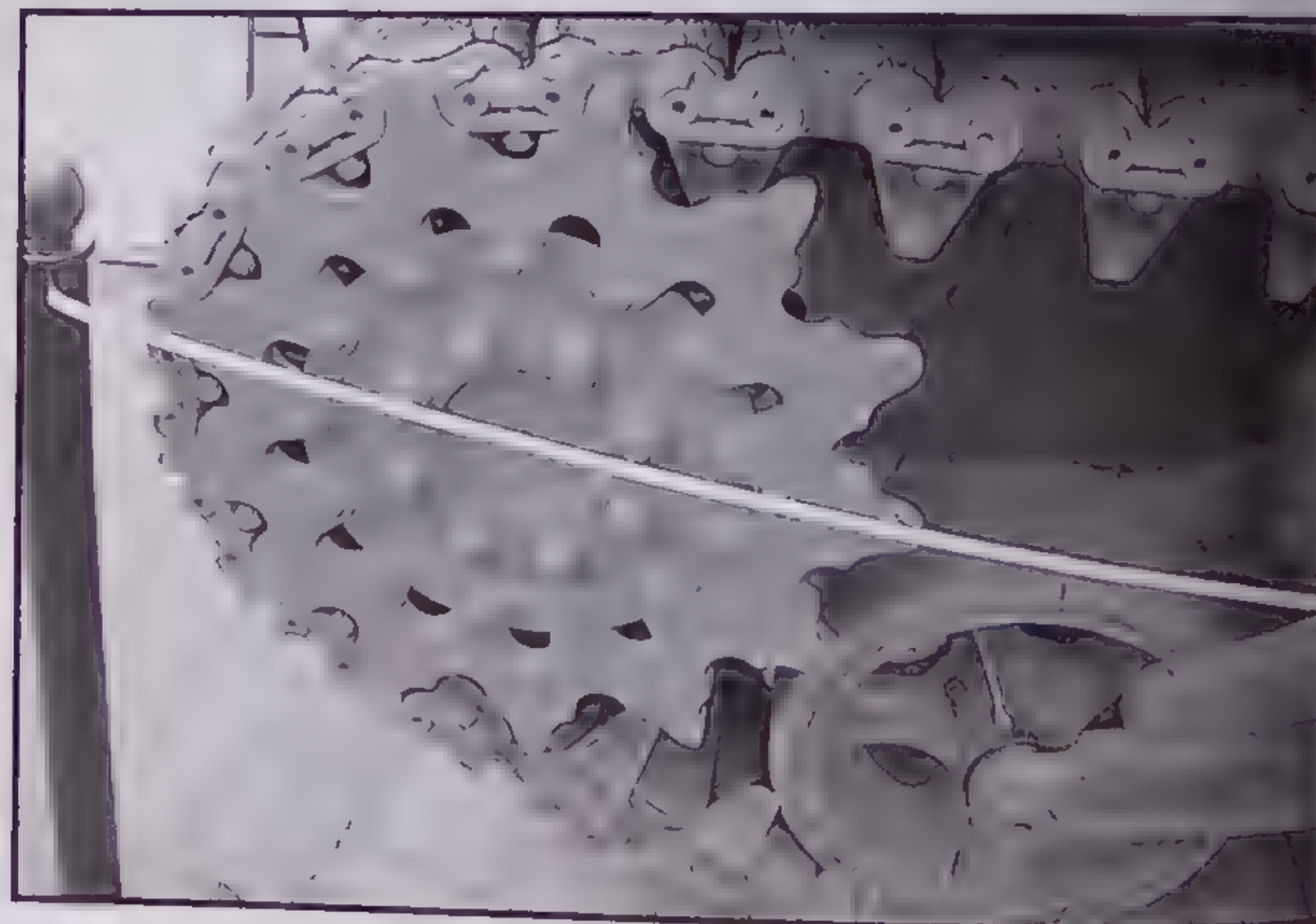
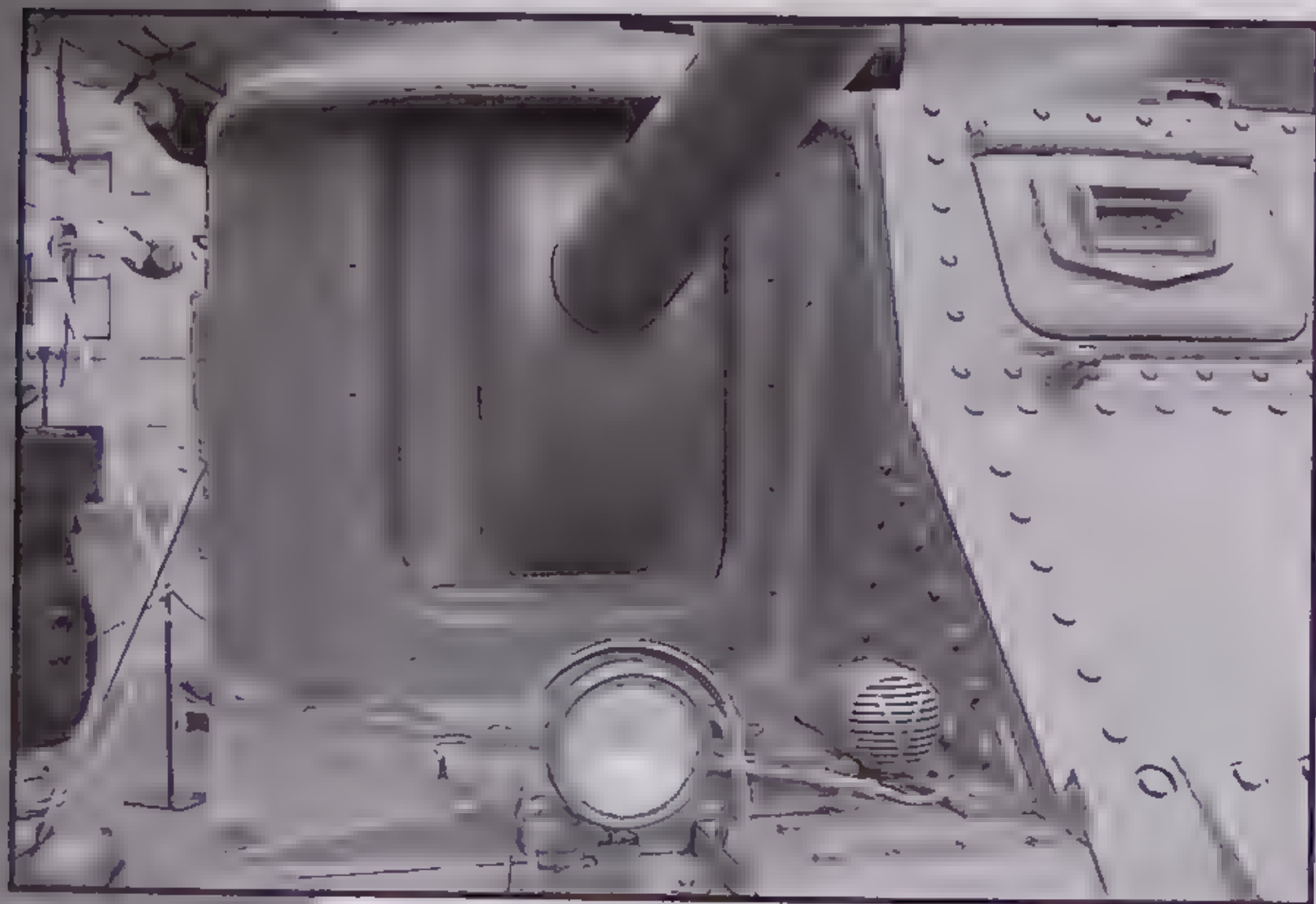
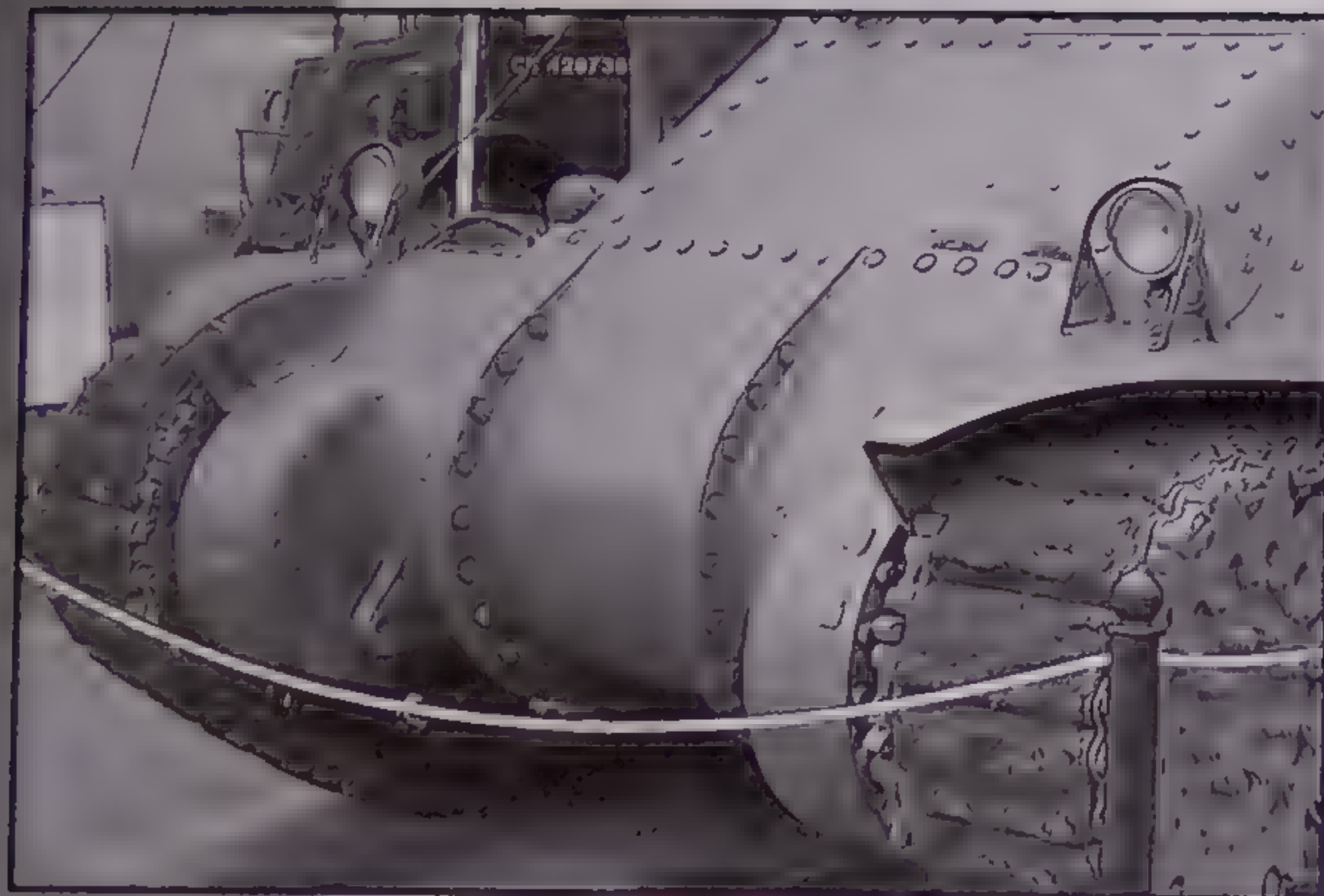




This modified early model M3 Lee was on temporary display in August 1991. The Canadian War Museum Ottawa, Ontario in August 1991. The Canadians used the M3 only for training. It was never used in combat by their armed forces. Note the prominent flare on the muzzle of the 75mm gun.

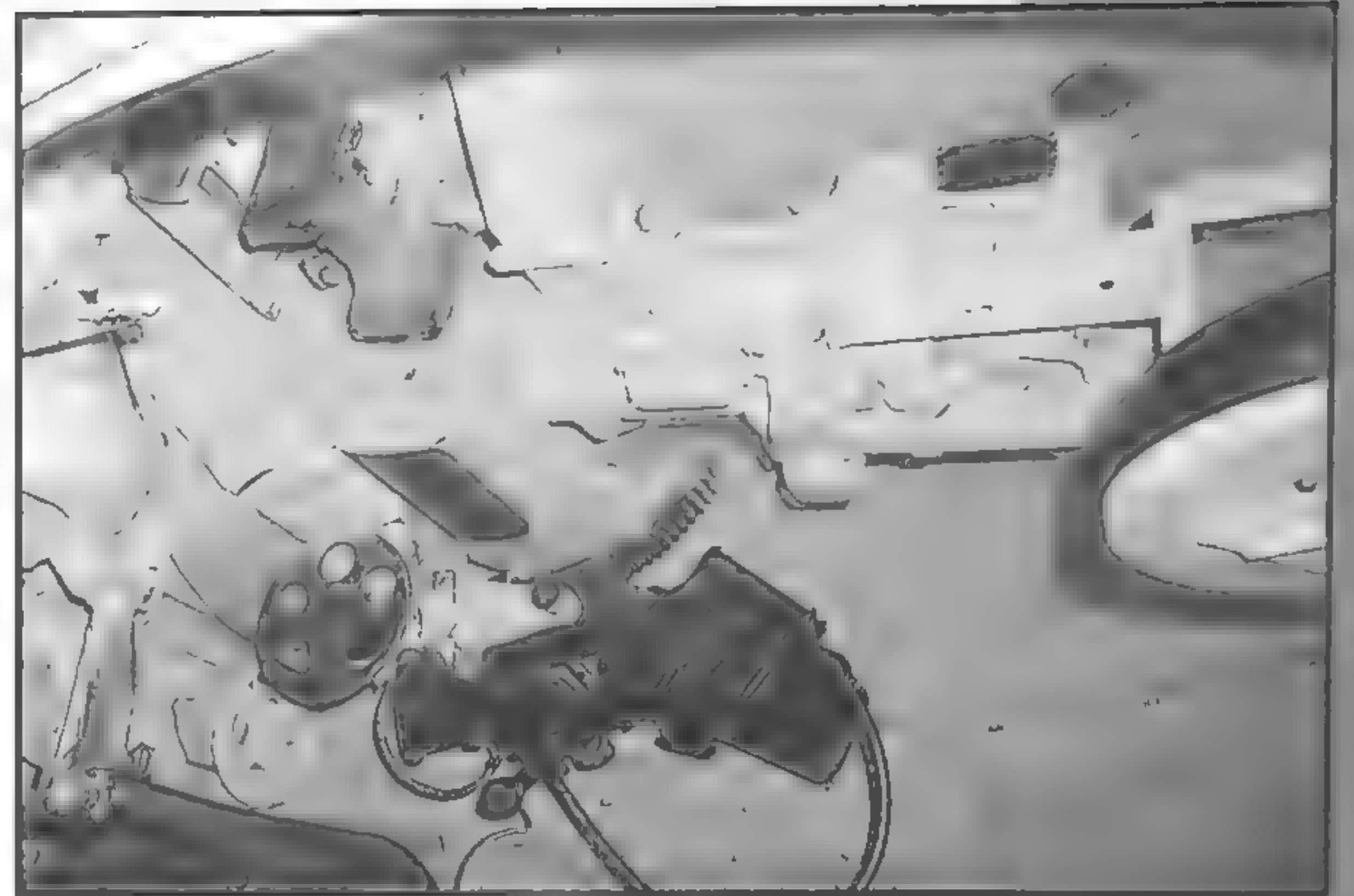
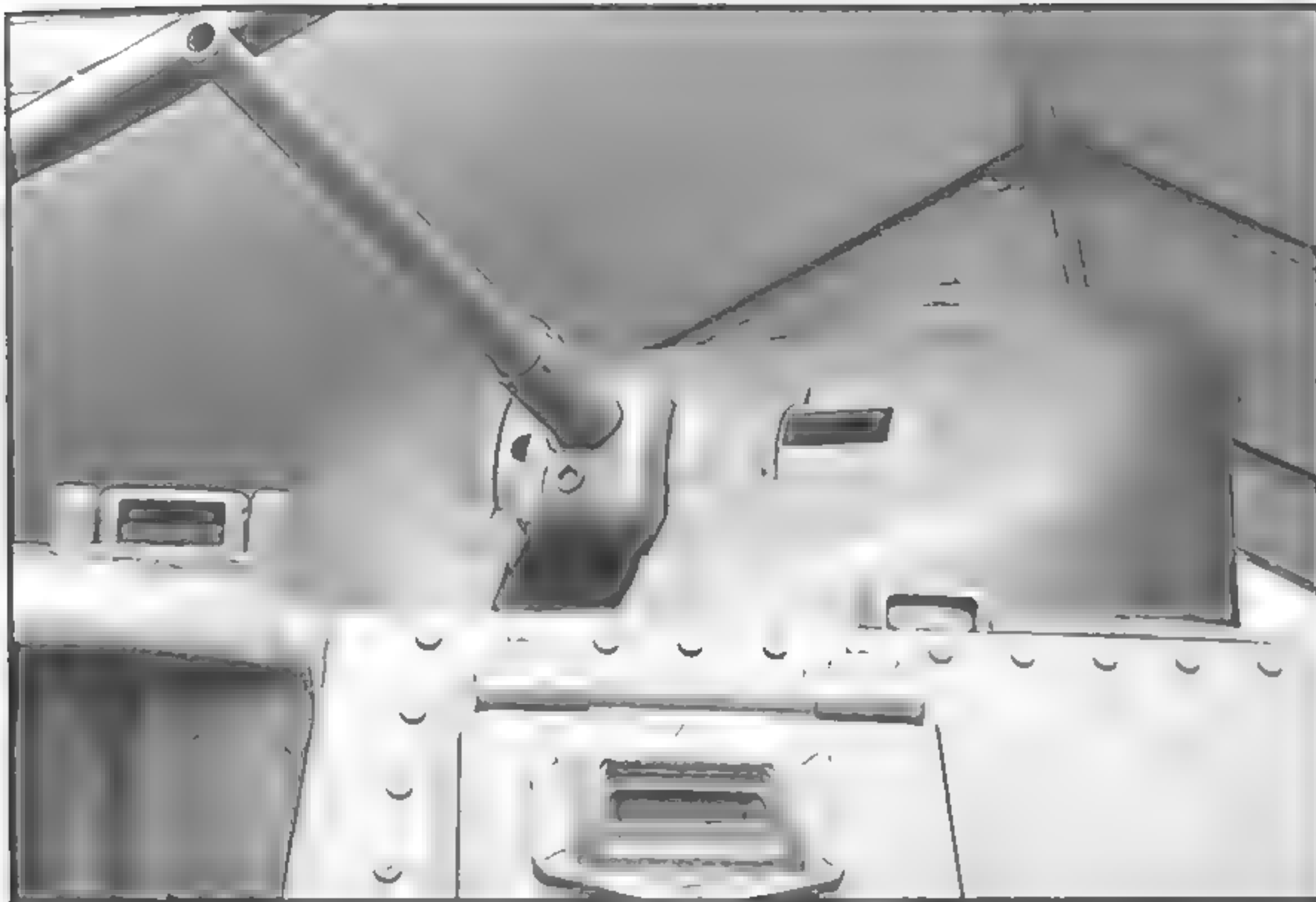
This overall 3/4 rear shot provides a good view of the riveted construction of the Lee's hull. Also seen are the left side door interior and the 75mm ammunition racks inside the door. There is a good view of one of the large storage boxes added to the rear deck by the Canadians. As this photo clearly illustrates, the "live" nature of the tracks meant that they show no sag along their top run.





Top left: The dual machine gun openings in the front hull have been sealed with armored plugs. This view also gives an excellent perspective of the distinctive three-piece transmission housing. **Top right:** The left front fender and headlight wiring detail. The right appears to be a replacement, as it does not fit the housing properly. Note how the corner of the transmission housing is chamfered. **Above left:** An

overall view of the cast housing for the 75mm gun on the right side of the tank. The right fender detail can also be seen here. Although the mounts are present, the machine gun tripod and axle head are both missing. **Above right:** The early 'fancy' style version of the drive sprocket would have been common on this tank. Perhaps it was switched to this later style due to damage and/or wear.



Top left: The top machine gun turret has been removed and replaced with a Sherman style split hatch. The texture on the turret and the 75mm gun mount also are evident in this photo. **Top right:** Looking up at the 37mm gun in the turret, the breech and the elevation wheels can clearly be seen. The gun is missing on this example. **Above left:** This Lee uses the later canister style exhaust

system seen on the Sherman. The large double access doors are also seen on several types of Shermans. **Above right:** This is a good view of the original type of suspension called the Vertical Volute Suspension System or VVSS with the return roller centered over the open-spoke roadwheels. The rubber on the roadwheels has taken a considerable beating over the years.

Sturmgeschütz at the Front

The development and deployment of the Sturmgeschütz was a very unique aspect of the history of modern weaponry. The role of the Sturmgeschütz was envisioned to be a mobile support weapon capable of assisting infantry in overcoming difficult obstacles. The Germans employed this concept with devastating effectiveness throughout World War II. Even though the Sturmgeschütz's role changed as the war progressed, the Germans were still the most deadly employers of the mobile assault gun. Unlike other modern armies, the Bundeswehr continued the development of the StuG with the modern Marder and even created some highly experimental double-barreled models. The role of the infantry assault gun was eventually overshadowed by the appearance of infantry fighting vehicles (IFVs) such as the Bradley and the Warrior. The Germans first conceived this role of the Sturmgeschütz in the twenties and thirties when they began experimentation with a variety of artillery pieces mounted on tracked chassis. The idea was further expanded and the concept narrowed when an unarmored superstructure was mounted on the chassis of the then new Panzer III C. This was designated the Sturmgeschütz C. Contrary to some earlier accounts, this vehicle was never armored, the superstructure being constructed of mild steel. Of course the vehicle never saw

combat, yet it remained an important training aid. It became clear during the Polish campaign that the program of assault artillery should be fulfilled. Further development led to the first of the Sturmgeschütz models, the Ausf. A. The A was based on the chassis of the Panzer III E. Only eight of the new vehicles were produced and they were assigned to the first of the

Sturmabteilungen. 16 Sturmabteilung of Infantry Regiment Grossdeutschland. This small unit was both trained and deployed with its small complement of

StuGs. They saw their first combat in France in support of I.R. GD and, although their role was minuscule in relation to the rest of the weapons employed, the lessons learned

would prove to be invaluable in later campaigns. As the war progressed, the role of the

Sturmgeschütz began to change. The vehicles

were increasingly called upon to deal with enemy armor. Subsequent

weapons upgrades and automotive improvements

led to the StuG B, C, D, E, F and G. At war's end, many

Panzer regiments were supplemented with Sturmgeschütz

to make up for the shortage of tanks.

This StuG B can be recognized by the ribbed inner aperture on the left side of the upper hull. It is seen in Russia during the summer of 1941. This vehicle carries two sizable unditching logs on either side of the hull. A complete eight-man MG platoon comes along for the ride. (BA)



This StuG C/D can be recognized by the absence of the sighting aperture on the left side of the hull. The only external difference in the Ausf. C and D models was the installation of the key locks on the glacis hatches on the Ausf. C (BA).

This StuG E and its crew await their orders at a port in southern Greece. The Ausf. E can be recognized by the large square boxes on either side of the upper superstructure. These were provided to accommodate the installation of new radio sets. (BA)



An excellent rear view of a StuG C D. The armored cover for the rear mounted smoke candle array was introduced on the Ausf. B. The installation of sheet metal exhaust deflectors is of interest. (BA)







A StuG F of 1 StuG Bde GD lies disabled by an anti-tank mine and awaits removal to the rear for repairs. The Division's organic maintenance section, Kraftfahr Parktruppe GD, possessed three Werkstätt (workshop) companies, a spare parts company and an armorers detachment sufficient for most repairs. The Werkstätt company was responsible for the excellent series of unit wide modifications seen here, such as the rear mounted jerry can racks, rear deck stowage and spare roadwheel and track brackets (BA)



Watched by officers of Panzertruppe GD, a Sturmgeschütz F of StuG Abt GD moves on a corduroy road constructed around a railway track along the Don. The photograph shows that both the area over the driver's roof and the engine compartment have been filled in with a layer of concrete to improve the gun's protection and afford better protection. BA

This StuG F has several interesting identifying features. 30mm plates welded to the front denote an August 1942 production vehicle. Note the design of the plates: notched on the hull to accommodate the older style towing shackles and segmented around the driver's visor to accommodate the driver's periscope. Wider "Winterketten" tracks have been installed on this StuG for greater floatation on the snow. (BA)



Several major and important changes were made to the StuG with the introduction of the Ausf. G. Most notably as seen here, is the redesigned and better-sloped superstructure, the addition of a commander's cupola with seven periscopes, and the installation of the large armored panel on the very rear of the hull. The location of the fume extractor vent on the rear of the superstructure indicates that this StuG was manufactured after April 1943 (BA)





These Ausf. Gs move down a road in central Russia during the winter of 1943-44. Besides GD, many other units provided large, elaborate stowage boxes for the rear hull. Sometimes these were simply an improvisation by the crew. The large bins are also seen on certain Panzer IIIs. The tank in the foreground has a spare wheel mounted on the rear hull and several lengths of spare tracks stowed around the hull. (BA)

The vehicle seen here and on the next page is most likely from the April or early May 1943 production. The identifying feature is the installation of the 30mm plates to the front hull. These plates were dropped by May of 1943, when the front armor panel was increased to 80mm





Dating this particular vehicle is difficult because so many of the identifying features are obscured by exterior stowage. It does have a rather scruffy coat of Zimment paste applied to the hull that would indicate a vehicle produced prior to the factory introduction of the coating in September 1944. It is liberally covered with spare track links, no doubt added in this case as extra armor. Two posts have been welded to the upper part of the roof to accommodate additional lengths of links. The Schurzen side skirts are the solid panel Panzer III style, rather than the laminated style common to StuGs at this time. (BA)



A line of early StuG Gs moves down a road during training in Holland during the first part of 1943. These vehicles have the more typical laminated armored side skirts and the 30mm bolted on armor plates. All of them appear to have an elaborate tarp system for the upper superstructure. The Sturmgeschütz was far from waterproof and unless combat actions prohibited it, these tarps would be close at hand. (BA)



This early G also sports the Panzer III style side skirts. Spare tracks have also been attached to the hull, just forward of the commander's cupola. It is thought that this is a training exercise; note the all-weather tarp and the opened transmission access hatch. It opened more or less over the driver's legs and was a welcome source of additional ventilation for the crew. (BA)



The G model was manufactured without the 30mm
machine gun on the front hull and without the com-
mander's cupola deflector. These factors and the
presence of factory applied Zimmerit indicate a
September 1943 production vehicle. The square pat-
tern Zimmerit is indicative of the manufacturing firm
of Mag. Note the sun shield extensions on the com-
mander's scissors scope. (BA)



Interestingly, this mid-production StuG G has the welded version of the gun mantlet with the hole for the coaxial MG. This was introduced into production in June of 1944, but lacks the commander's cupola deflector. This puts its production date sometime between June and October of 1944. Note the unusual pattern of camouflage on the side skirts and the two vehicle "mascots" (BA).



This late August production StuG G is seen here being inspected by U.S. troops in Holland during the aftermath of the initial Operation Market Garden assaults on September 19, 1944. The vehicle has received dozens of hits to the front glacis plate, driver's visor and the muzzle brake. Note that the visor housing has been completely sheared away. The forward hull travel lock was introduced during July 1944 production. (NARA)



The "Topfblende" pot mantlet was introduced in November of 1944. Early examples, such as that seen here, did not contain a port for the coaxial MG. This StuG utilizes the second of three metal pattern return rollers first seen during the summer 1944 production. (BA)





Another, closer shot of the early November production vehicle
Note how the left track is slacking as the vehicle negotiates a
right turn. The waffle iron pattern Zimmerit coating was indicative
of the firm of Akett (BA)

These two menacing looking StuGs also lack the coaxial MG port in their Topfblende, indicating early November production for both. The nearest vehicle has a copious amount of spare tracks all over the hull, including an interesting three-link section strapped to the front right hull. (BA)



Men of the 28th Infantry Division search for souvenirs on an early November production StuG on November 24th 1944 making the service life of this vehicle pretty short. Unusually the return rollers are a mixture of rubber rimmed and the late style steel type. This could be a rebuilt Sturmgeschütz, as there appears to be no evidence of the gun travel lock. (NARA)





A : : : yard in Rouen France this StuG has been pressed into duty as a locomotive. The entire superstructure has been removed to facilitate this and without the additional weight the vehicle was probably quite useful for : : : task. A large U.S. style tow hook has been welded to the rear hull and presumably some type of bumper has been added to the front hull. There is little left to help identify the manufacture date, other than the presence of the later production steel return rollers. This photograph was taken on February 19th 1945 (NARA)

U.S. Rockets in WW2



The effective use of the 4.5 rocket by the U.S. Army Air Corps led to several experiments to modify the launcher for ground use. The basic launcher used was the M10 4.5 inch Aircraft Rocket launcher. As the tubes themselves were only fastened together with simple straps, individual tubes were arranged on

a variety of mounts. Here, a GI of the U.S. 7th Army loads a rocket into one such arrangement mounted on the back of a Jeep. Details of the mount are especially clear in this photo. (NARA)



Above a crew is setting the fuse on the rockets. There were four different types of rocket: M8, M8A1, M8A2 and M8A3. There were only minor differences in the various rounds and each was progressively more effective. These rockets each weighed approximately 38 pounds and had a 15-pound HE filling

warhead. The range of the rocket was approximately 4,000 yards. **Right** The M8 4.5-inch round was a fin-stabilized rocket. The fins open up after the rocket has left the tube. The fiber containers can be seen in the background (NARA)





An overall view of the Jeep mounted launcher. An armored cowl has been constructed over the driver's compartment, but it is doubtful that the crewman would remain for the launch. The launcher seen here has a fixed traverse, but can be elevated up to 35 degrees. It is assembled from what appear to be 12 M14 rocket tubes. These were nearly identical to the M10 tubes, but were steel instead of plastic. (NARA)



The two photos are excellent illustrations of the basic M14 steel launcher array. This was the initial configuration of the experimental mount, with the array simply placed on an improvised trailer. The only thing missing here is the underwing mounting brackets. The rockets could be fired all at once or singly when mounted to the wing of an aircraft, but it is unclear if this function was enabled on this ground-mounted version. Note the electrical wire coiled around the trailer. The shot above provides a close-up of the firing mechanism. (NARA)



T34 launcher was designed by the US Ordnance Department in late 1943. The launchers were built in the US and shipped to England before D-Day for installation on Sherman tanks. The original tubes, based on the M10, were made out of plastic and became useless after a few firings. Weighing 18,100 pounds, the T34 carried 60 4.5-inch rockets in 90-inch long tubes. Mated to the

Sherman chassis, they were nicknamed the "Calliope." This is believed to be a vehicle of the 14th Armored Division in Germany in late January 1945. The elevation arm on the earlier T34 launcher has been removed from the gun barrel and attached to the rotor shield. This field expedient allowed the main gun to be used but still restricted the elevation of the launcher. (NARA)



The T34 was supposed to be a disposable apparatus, which after firing could be discarded. The problem was the launcher's elevation arm was attached to the main gun barrel. This meant that the gun could not be used until the launcher had been affixed, making it very unpopular with the crews. A second version, the T34E1, was modified to allow the main gun to be fired without affixing the launcher array. Based on the M15 "Archer," the T34E1 also featured an improved disconnect system and

magnesium, instead of plastic, or steel tubes. This group of M4s from the 48th Tank Battalion of the 1st Armored Division rests near the town of Dettwiller in mid February 1945. The tank in the foreground mounts an early T34 with the elevation arm installed on the barrel of the main gun. Both Sherman's in the foreground have some type of cowlings installed on their engine decks to protect them from the blast of the rockets. (NARA)



A good close-up of the front of the launcher array again from the 48th Tank Battalion. This is the T34 launcher with elevation arm attached to the gun barrel. However, it appears to have been retrofitted with either steel or magnesium lining tubes. A portion of the electrical firing system is visible on the elevation arm in the center of the photo. The T34 and T34E1 could be fired in three stages (each of the lower 12 tube arrays and the larger 36-tube), or all at once. (NARA)



The same crew were loading their launcher. This provides a good view of the elevation and mounting mechanisms, as well as the various sensors being used. It was necessary to locate the vehicle at a distance to clear it from the blast of the rockets. It is seen that the crew, now located on the left side of the turret. The sensor has been added to the armoured glass in patch on the shoulder of the turret. The centre of the turret about the time of the explosion is indicated by a 1418T mark.



Preparation for firing continues. The Sherman has been reinforced with sandbags for extra protection and this specific modification, along with the larger rear storage box, were common sights on Shermans of the 14th Armored Division in early 1945. One of the fiber storage tubes for the 4.5-inch rocket lies on the left side of the deck. Interestingly, there was also an infantry version of the launcher, the M12. This was composed of a special packing crate containing a single M8 or M8A1 rocket and an igniter. The whole array was mounted on a tripod for firing. (NARA)

One of the 48th Tank Battalion's Calliopes firing. Although these rocket launchers were originally envisioned to provide a high density of fire ahead of the assault troops, counter battery fire was considered a major issue. It was difficult, if not impossible to disguise the fire and smoke caused by a launcher. It was hoped that the mobility and armor of the Sherman would help to offset this disadvantage. The original T34 Calliope first saw action during Operation Cobra, where three of them fired the opening barrage on the German positions near Saint-Lo. (NARA)



German SdKfz. 250 Halftrack

The SdKfz. 250 series of halftracks was the logical automotive progression of the SdKfz. 10 1-ton halftrack. It was designed to meet the need for a compact armored vehicle for use in the recon role. The design requirement also suggested that the vehicle be large enough to carry at least four men in addition to its crew. The existing designs of the time, four, six and eight wheeled vehicles, all exhibited poor cross-country performance. The SdKfz. 10 1-ton tractor, served as a basis for the design, but was modified to accommodate an armored body designed by the firm of Bussing-Nag. The new halftrack was officially designated Leichte Schützenpanzerwagen SdKfz. 250, but is commonly referred to as le SPW. Production began in June of 1941 and ran until October of 1943. Over 4,000 vehicles were produced in twelve official variants. These variants were designated as SdKfz. 250/1, 2, 3 and so on. After October 1943, the body of the SdKfz. 250 was radically redesigned and these vehicles became known as "le SPW Neu," while the pre-production vehicles became known as "le SPW Alte." The SdKfz. 250's were normally assigned to the "Aufklarungs" (recon) units of both Panzer and Panzergrenadier divisions. In this feature the SdKfz. 250/1 "Alte" is primarily examined.



Three SdKfz. 250's wait outside a Russian village for armored elements to arrive. The purpose of the recon company was to determine points of resistance and direct the proper forces towards them. These vehicles are the 250/3 variant. This was known as the leichte Funkpanzerwagen and

was used to transport the FuG7, FuG12 or a combination of the FuG7 and FuG8. All used the distinctive two-meter antenna. The vehicle in the center has an interesting unit-made storage box attached to the rear armored panel. (BA)

One and the following three photos depict 250s of the 2. Kradschtz Btl. of Panzergrenadier Division Grossdeutschland. They are seen in the area of Voronezh in June of 1942. The SdKfz 250 was issued with a complete all weather tarp, but it was commonly removed or pushed back for easier access to the interior. Initial issuance of these vehicles was primarily to elite units, such as GD, and these vehicles are some of the first issued. (BA)





According the book *God, Honor and Fatherland*, this is the vehicle of the squadron commander, one Oberleutnant Hans Klemme. This is, again, a 250/3. This particular configuration, with the frame aerial, mounted both the FuG7 and the FuG 8. The FuG7 could be used for air-to-ground communication and the FuG8 was part of the divisional command net. Note the numeral one on the rear superstructure and the markings for 2./Kradstz Btl, and the familiar GD Stahlhelm emblem. (BA)

A front view of Oberleutnant Klemme's vehicle. A very neat mounting arrangement for water cans has been added to the right side fender. These types of unit modifications were common on vehicles of the GD, which had a highly efficient and organized divisional workshop. Note the overlapping "GD" symbol and the word "Chef" on the right side superstructure. This was often seen on the unit commander's vehicle. (BA)





A Sd Kfz 250/10 le SPW (3.7cm PaK) Zugführerwagen (platoon commander's vehicle). The Sd Kfz 250-10 was issued to each platoon commander of le SPW platoons to provide heavy fire support. The crew consisted of four, a driver, gun/vehicle commander, gunner and a loader for the 3.7cm PaK 35/36. The weapon was not only useful for attacking known targets, but also for supporting the normal method of advancing, which was to have two or three groups of vehicles "leapfrog" through each other's positions, supporting each stage of the move. Carrying four men and 216 rounds of 3.7cm ammunition on board, space inside for stowage was at a premium and the crew members have stowed much of their gear on the outside of the vehicle. (BA)

Forward recon elements of the 6th Army probe the defenses of Stalingrad in the late summer of 1942. This is a 250/3 (note the dual antenna) and it still retains its all-weather tarp. A name has been stenciled just behind the side mounted water can. (BA)



Another Sd Kfz 250 of the Panzergrenadier Division Grossdeutschland. This vehicle is believed to be part of the VPz Rgt. and is seen here at the approaches to Kharkov in March of 1943. An expertly constructed stowage box has been added to the right side fender. A similar box would become part of the production series later that year. Note the 'Flammpanzer III' flame-thrower tank in the background. (BA)



A Sd Kfz. 250/1 of the SS-Panzer Grenadier Division Leibstandarte advances towards the city of Kharkov in early March of 1943. This vehicle was part of SS-Pz Gren Rgt. 1, which after crossing the Msha River, attacked the city from the north. This picture was taken in the village of Dergatschi, a sizable obstacle on the road into the city (BA)

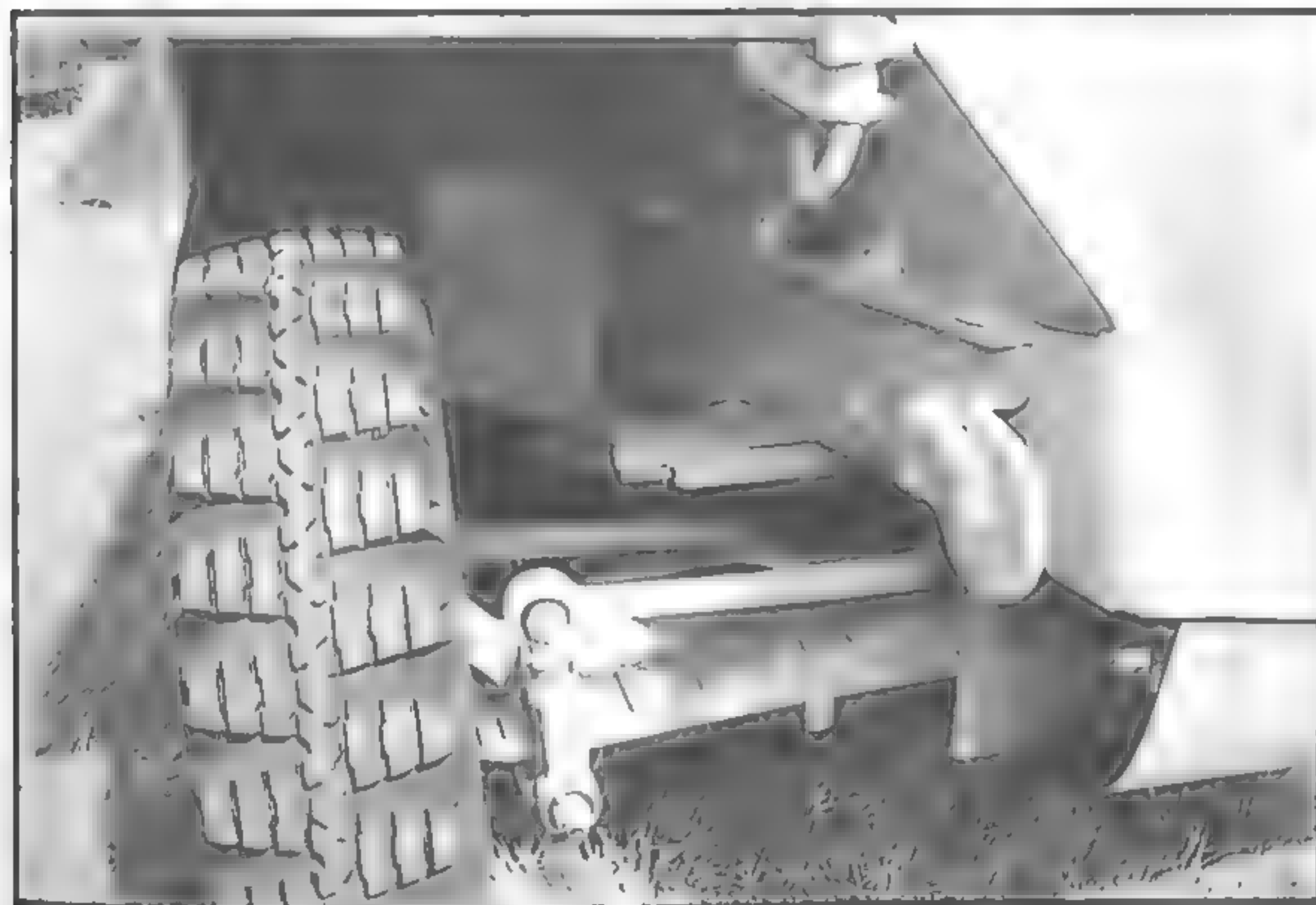
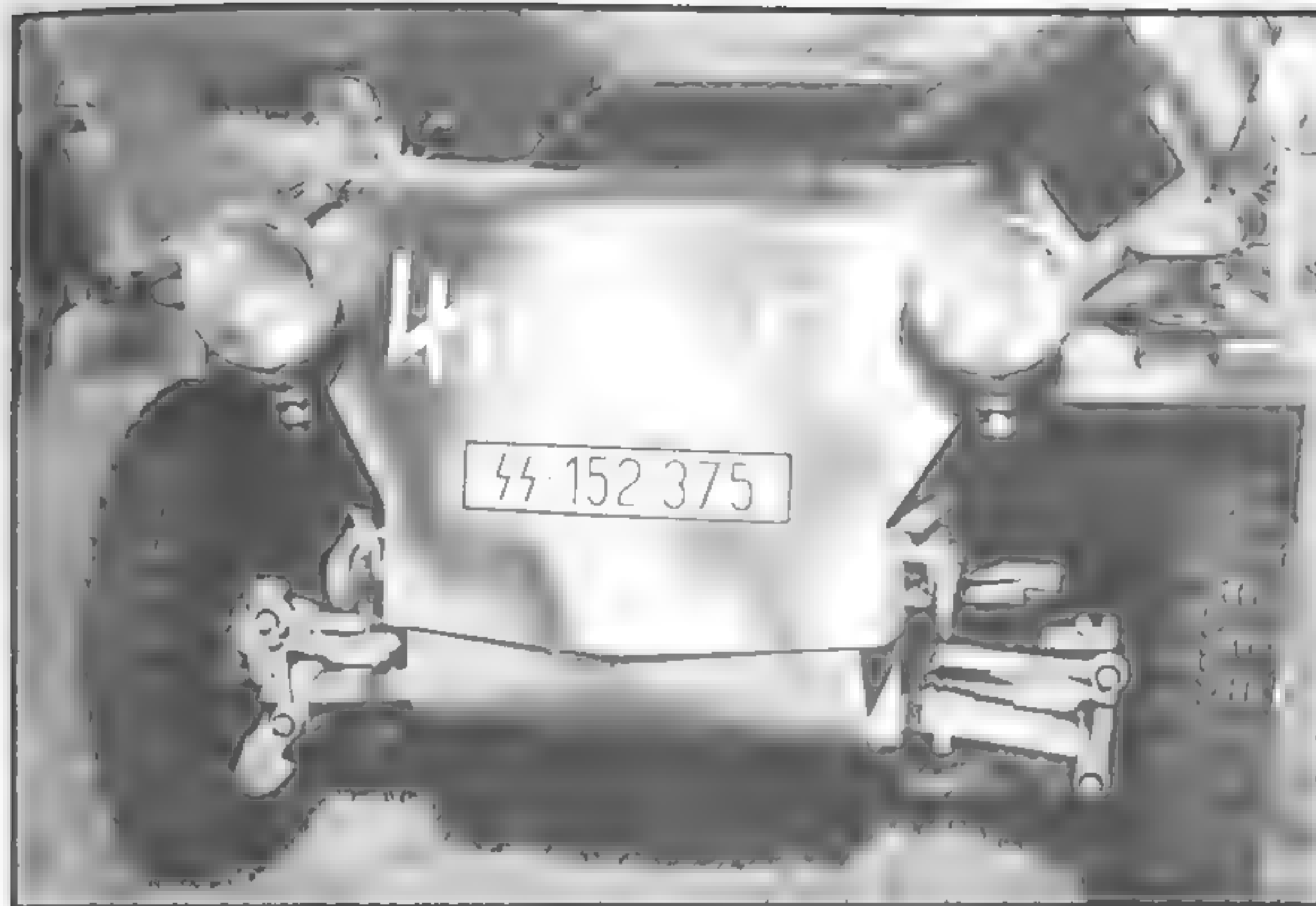


Harley's 1913 55 Passenger Van, 1913
at West Point of Ketchikan, Alaska
1913. This van was built by the Ketchikan
Coastal Ferry Co. and was used for
passenger service between Ketchikan
and Wrangell, Alaska.



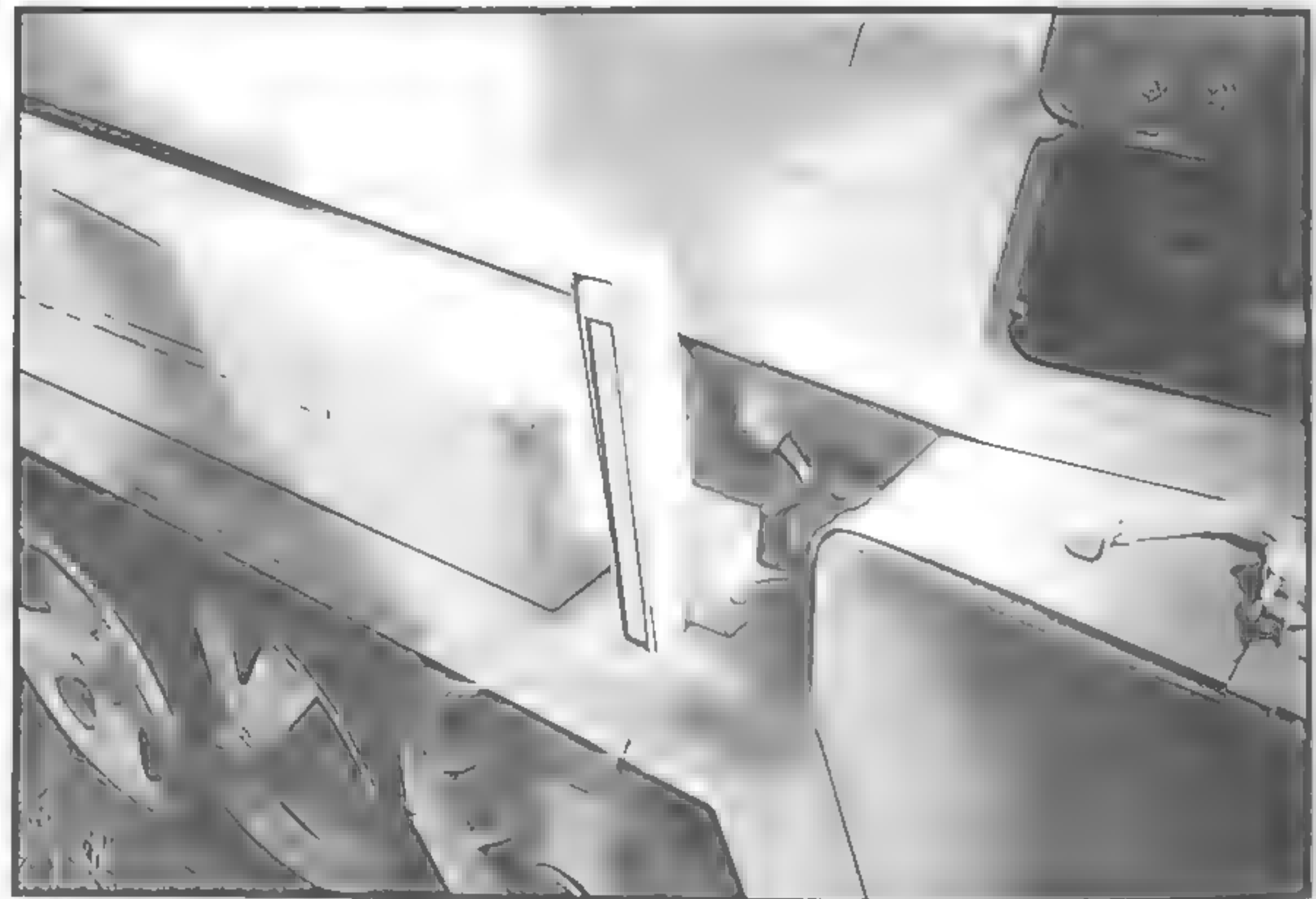


Due to the dedication and hard work of an elite group of enthusiasts, a small number of Soviet KV-2s have survived the war. An even smaller number of KV-2s have survived to match the condition of this superbly restored example. See more at the following pages on display at the Inland War & Peace show in 2000.

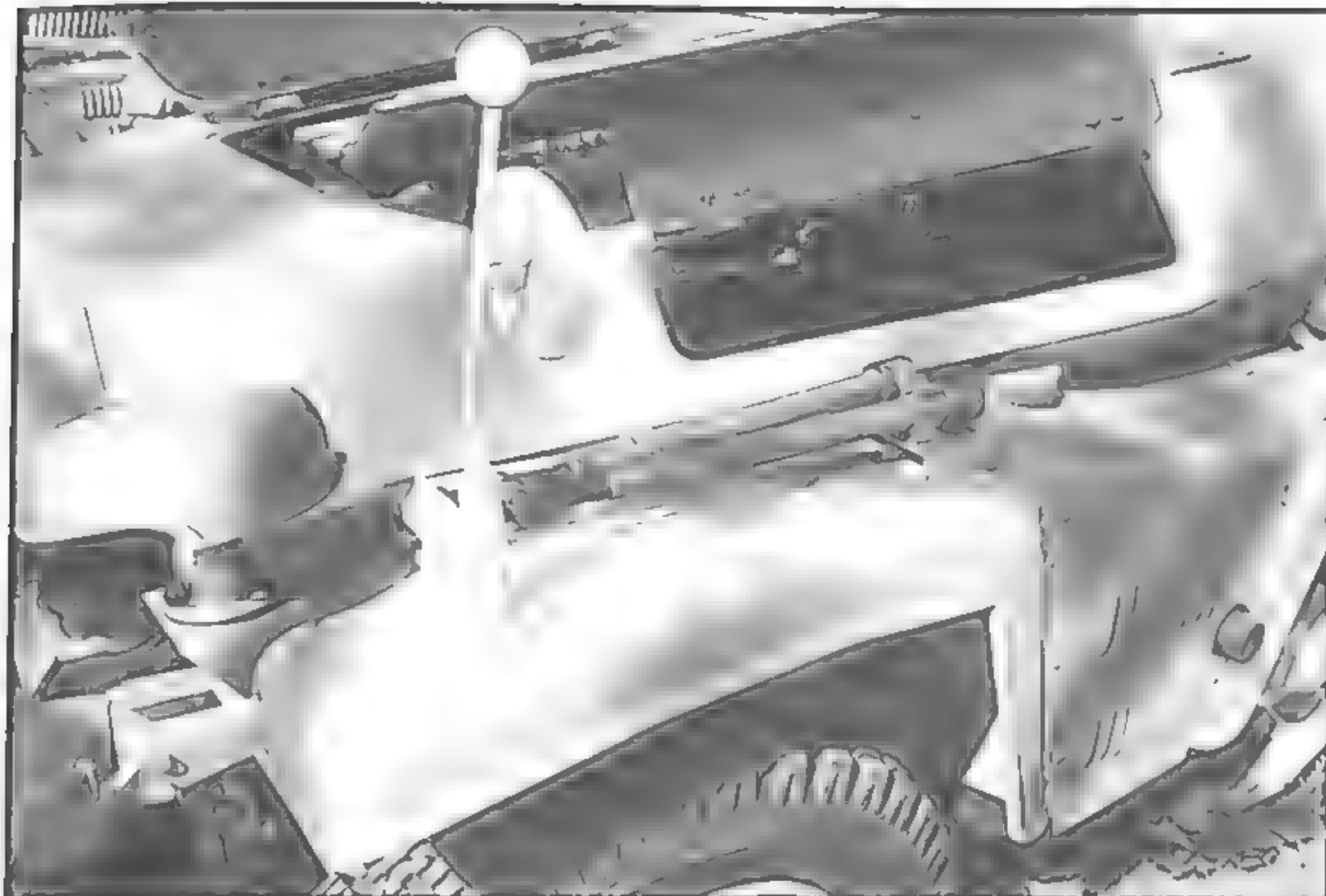


Top left This restored Sd Kfz 250 has been appropriately marked as a vehicle of an armored recon unit. In this case, one from the 2nd SS Panzer Division "Das Reich." **Top right and above left.** Close-up views of the front suspension showing the leaf construction of the front axle. The front tow hooks and

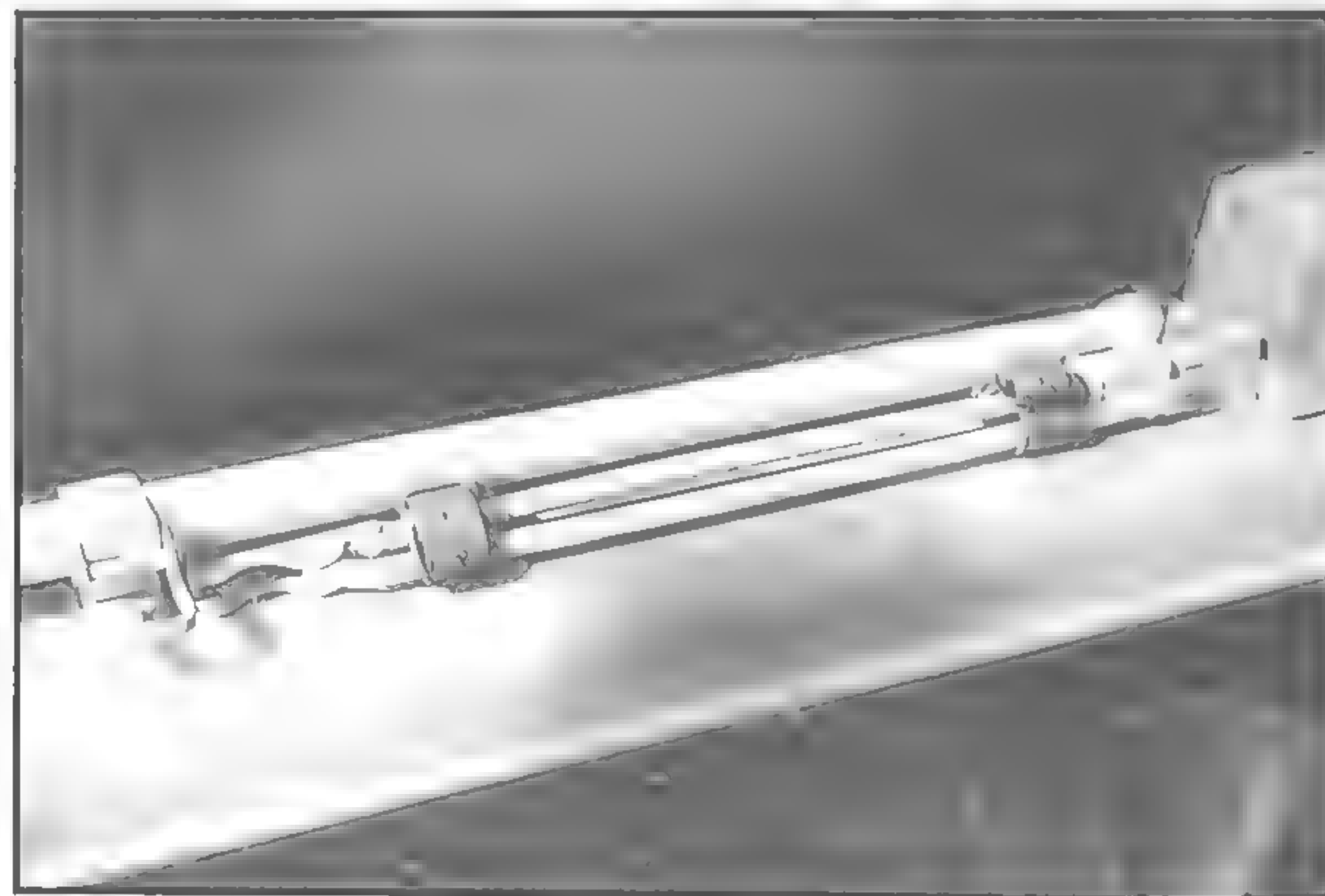
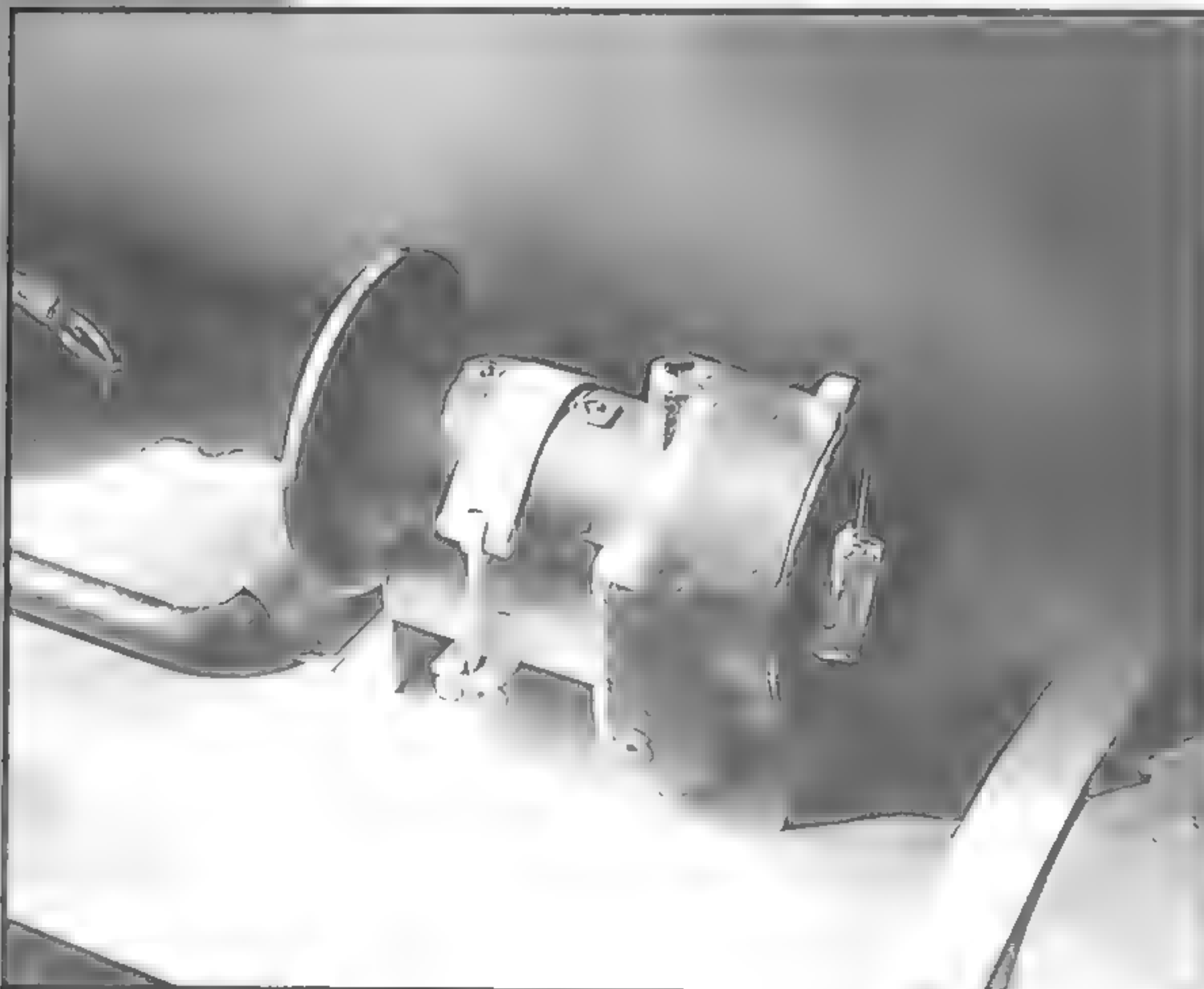
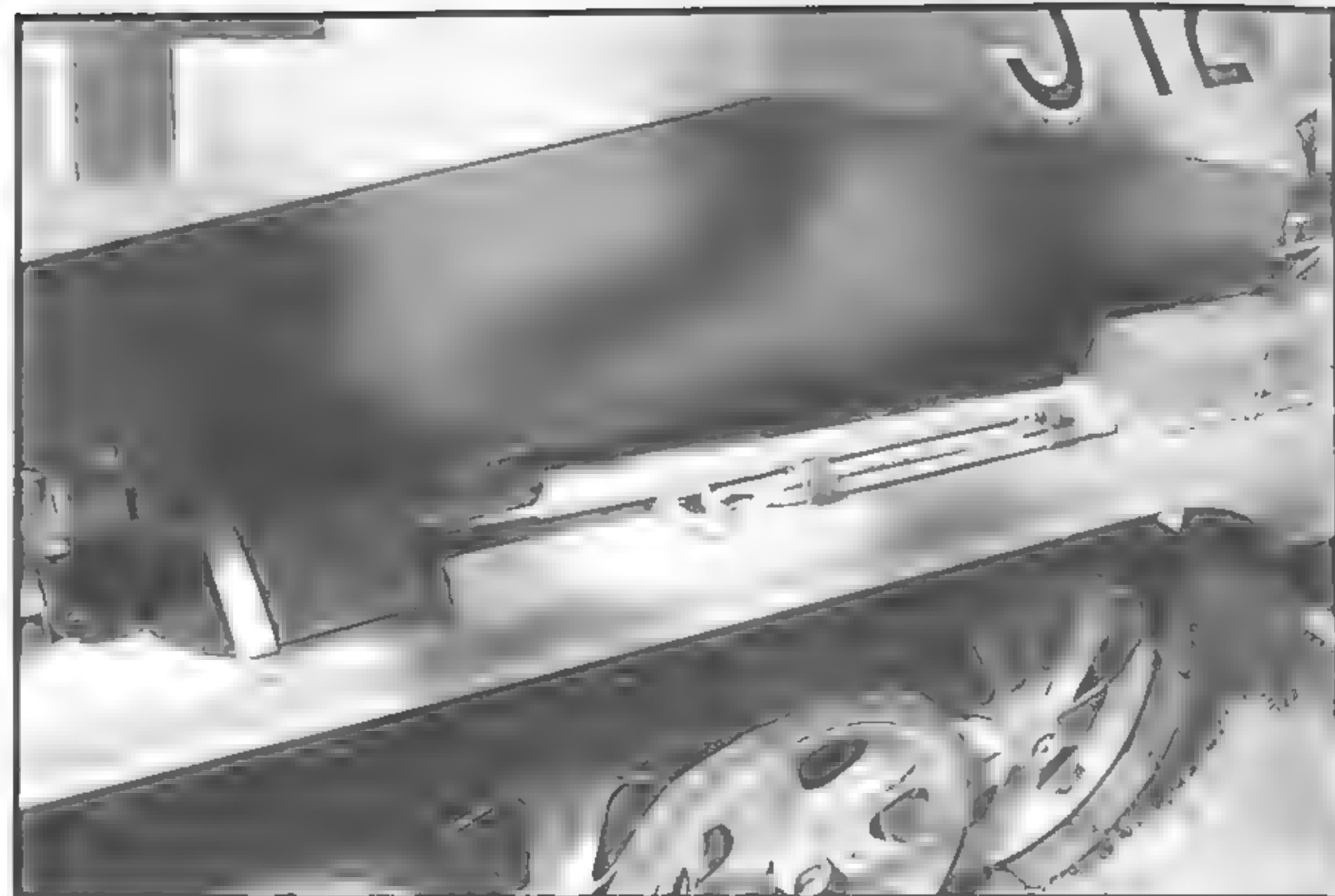
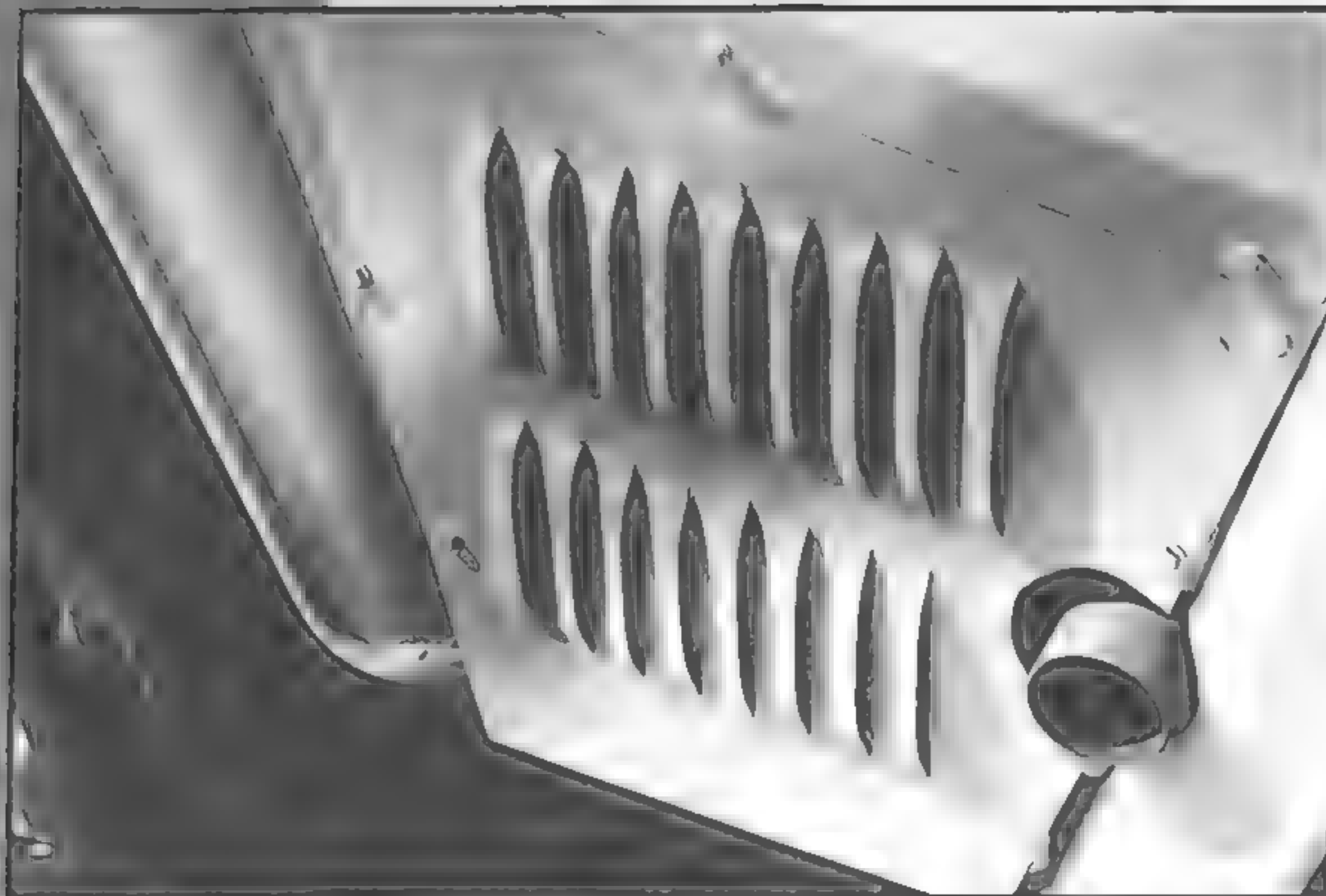
their mounting positions are also visible. Note the steel brush guard mounted under the front end of the vehicle. This was not an armored panel, but was only present to guard the suspension. **Above right.** The installation of the pick on the right front fender.



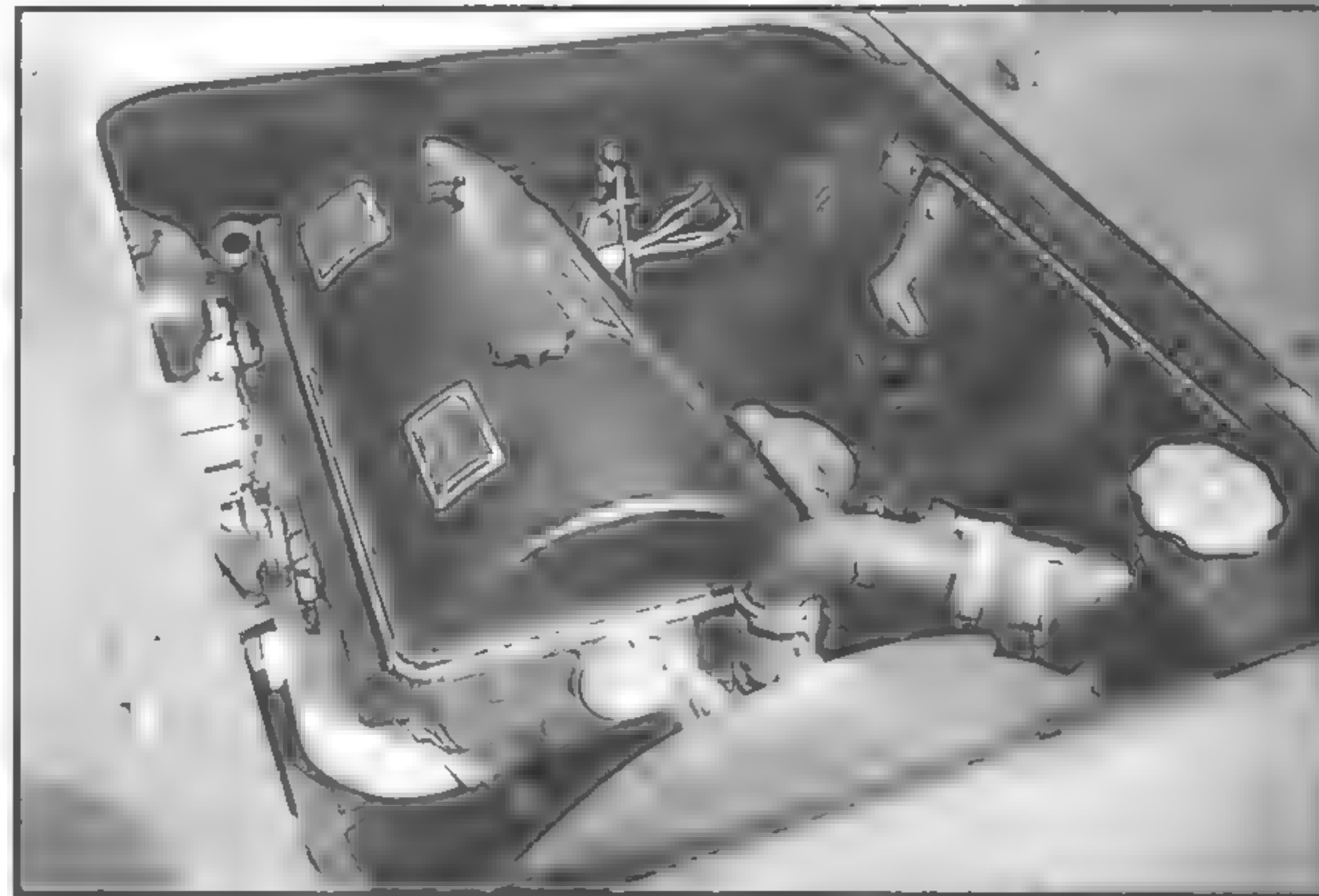
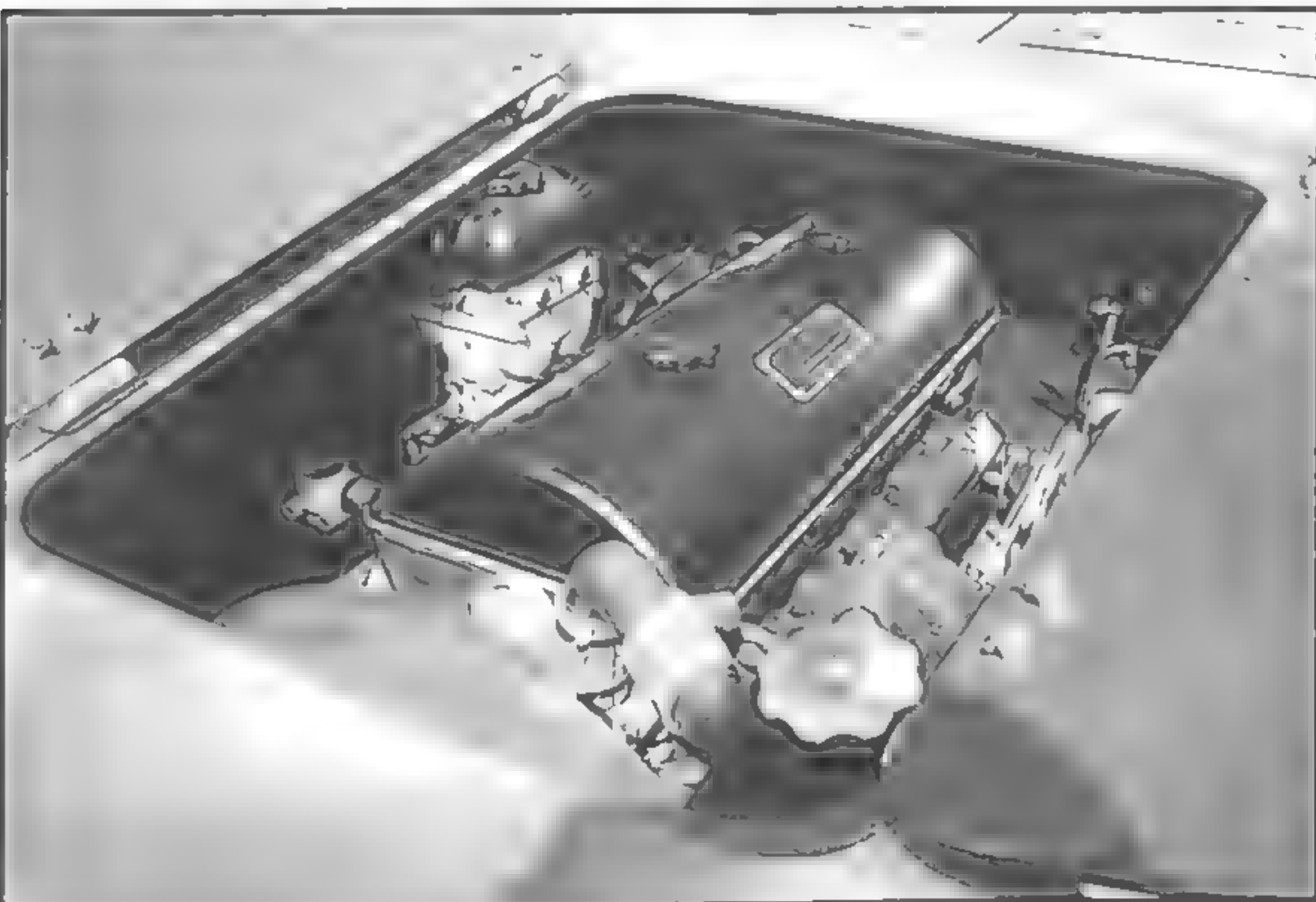
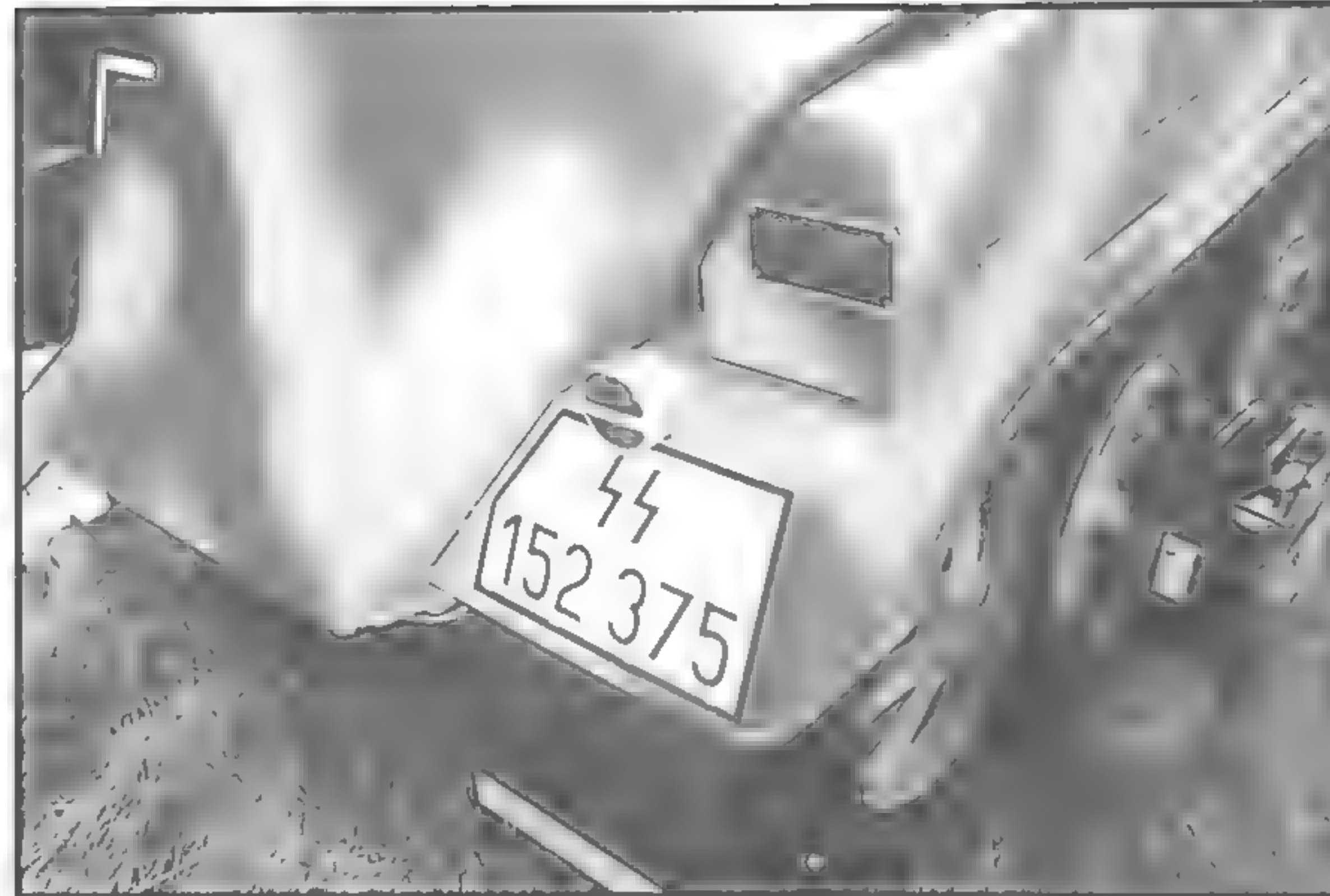
Left. An overall view of the distance marker on the front right fender. The adjustment nut and base plate can be seen clearly here. **Top right:** The installation of the axle on the front right fender. **Above right:** The turn signal and stowage box on the right side of the vehicle.



Top left: An overall view of the left fender showing the layout of the Notek light, distance marker and wire cutters
 Above left: A close-up of the Notek light and its mount. Note the weld bead where the mount meets the fender. Above
 right: Another close-up of the distance marker, this time on the left side fender. This photo provides a good perspective
 of the mount of the rearview mirror mounted on the marker rod

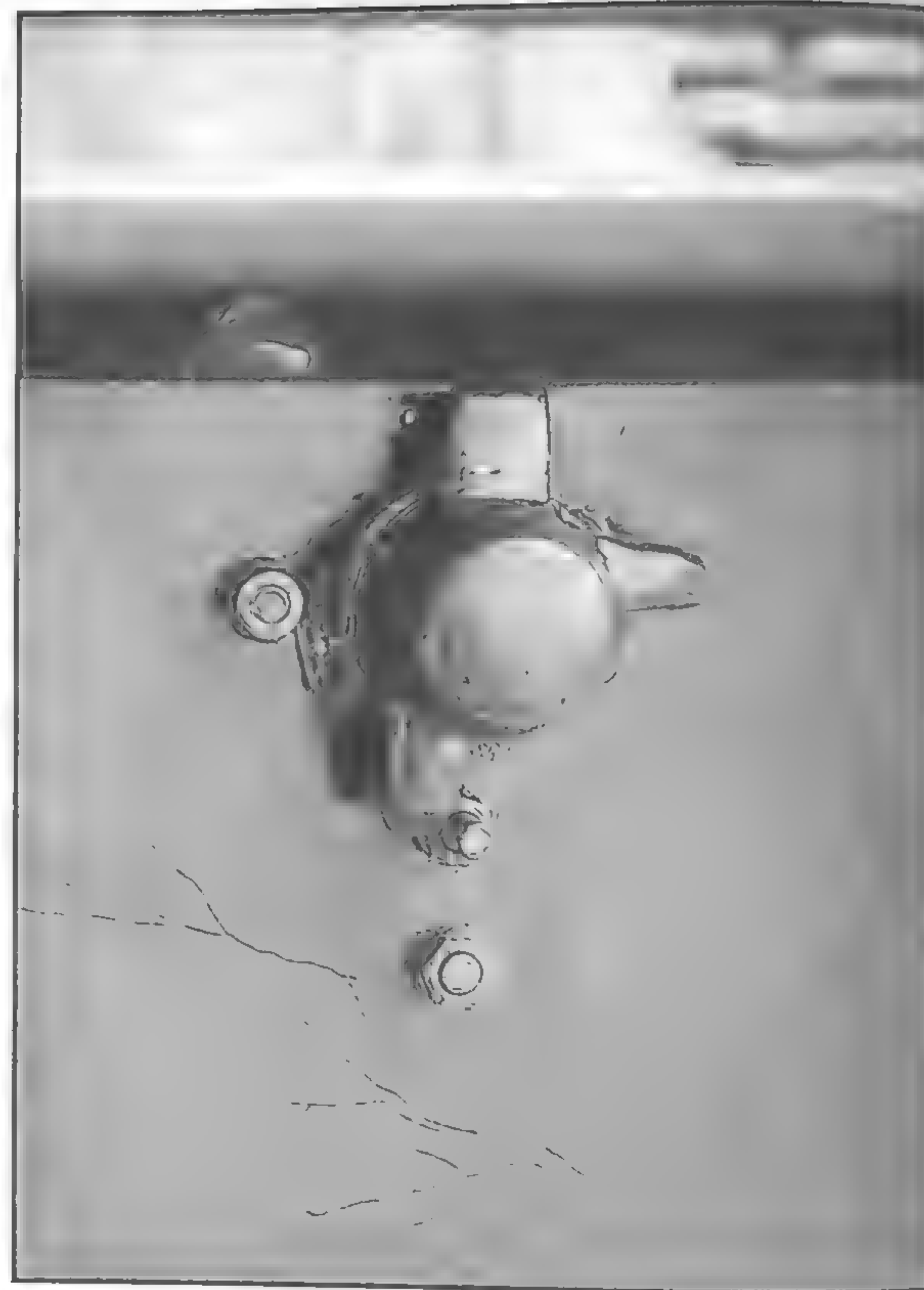
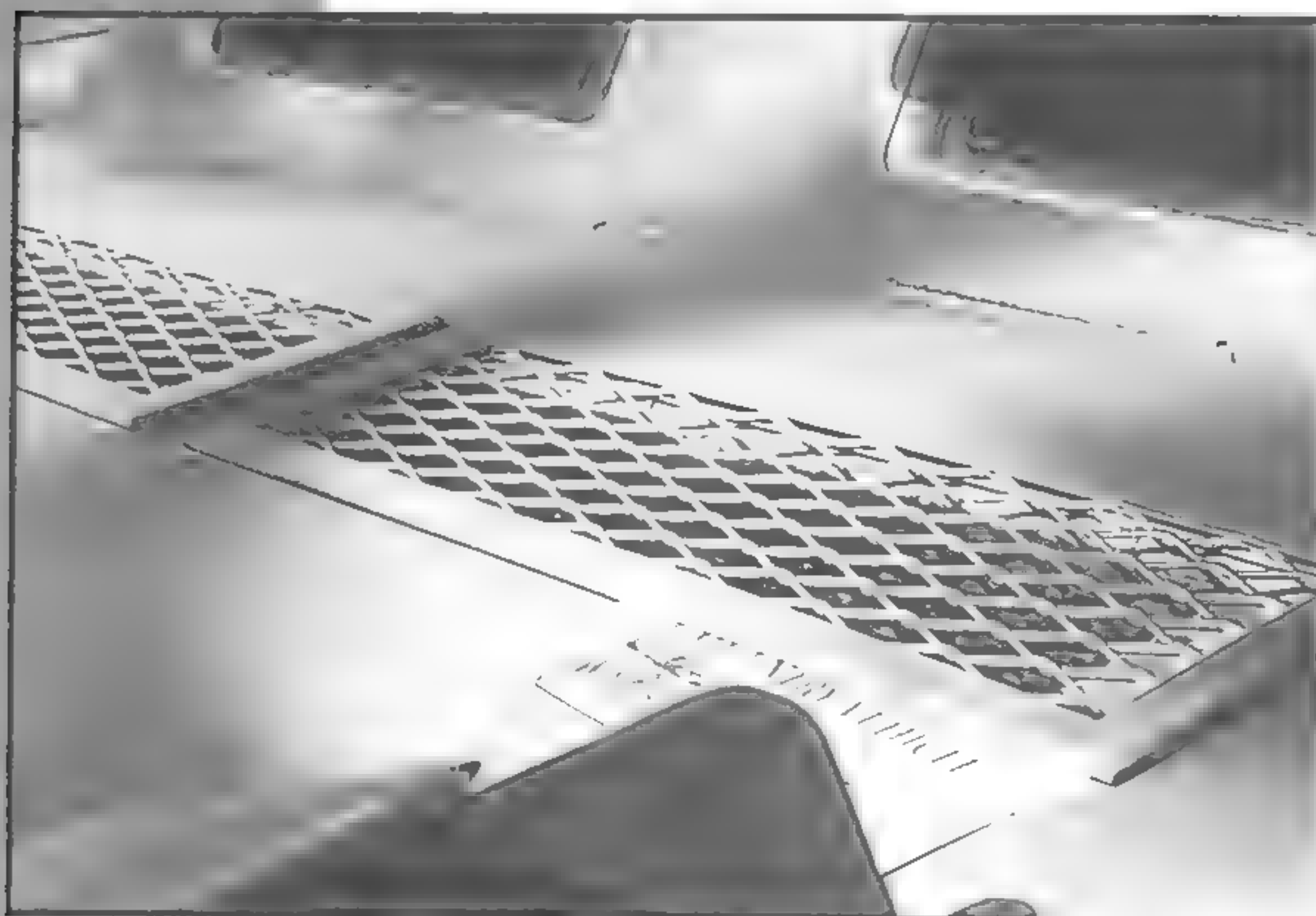
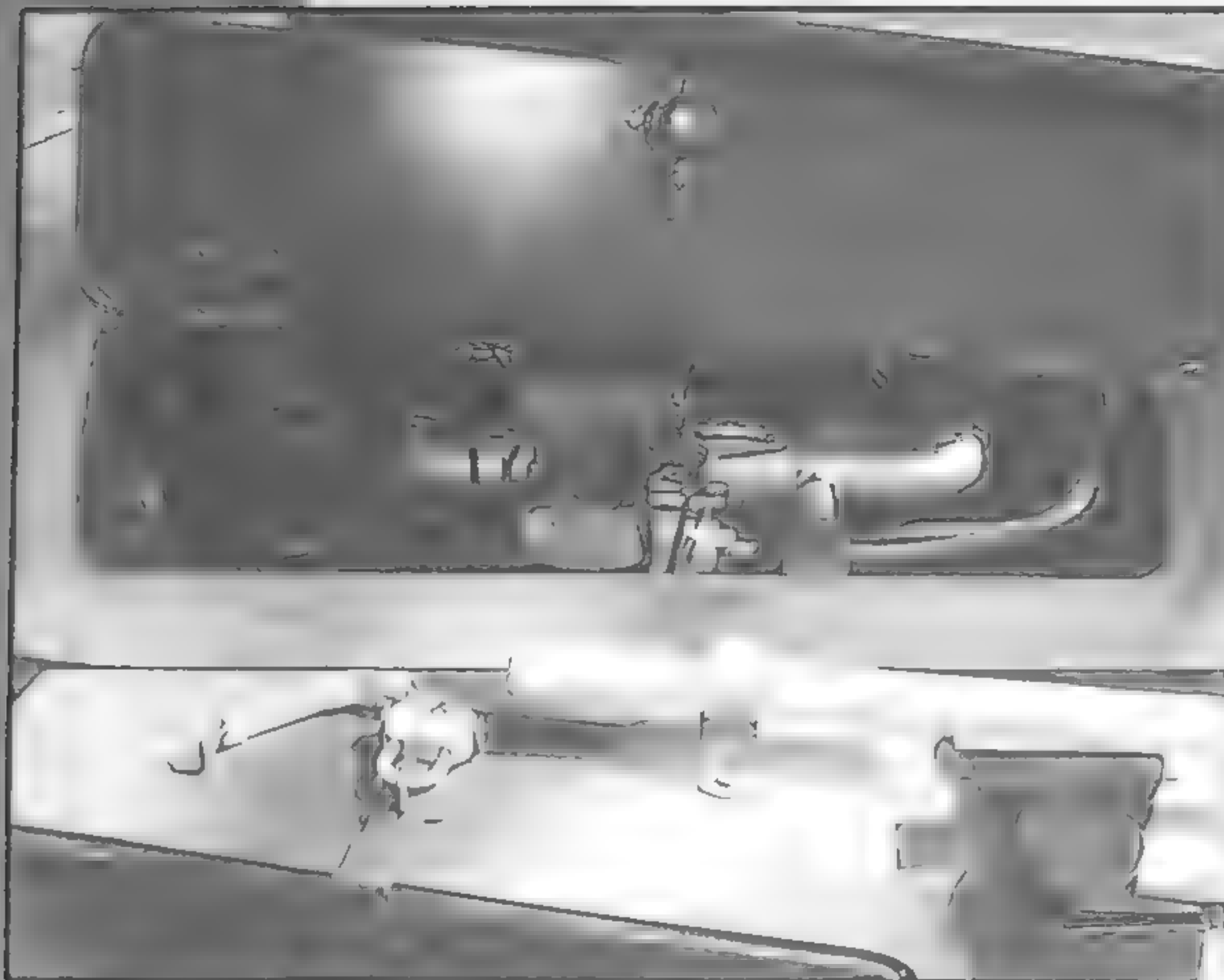


Top left: The vented area houses the muffler. The exhaust pipe is seen protruding at the lower right. **Top right:** The left side tool storage was composed of the jack, shovel, wrecking bar, jack crank and jack block. **Above left:** The jack and its mount. **Above right:** A closer look at the folding jack crank and its perfectly restored leather straps.

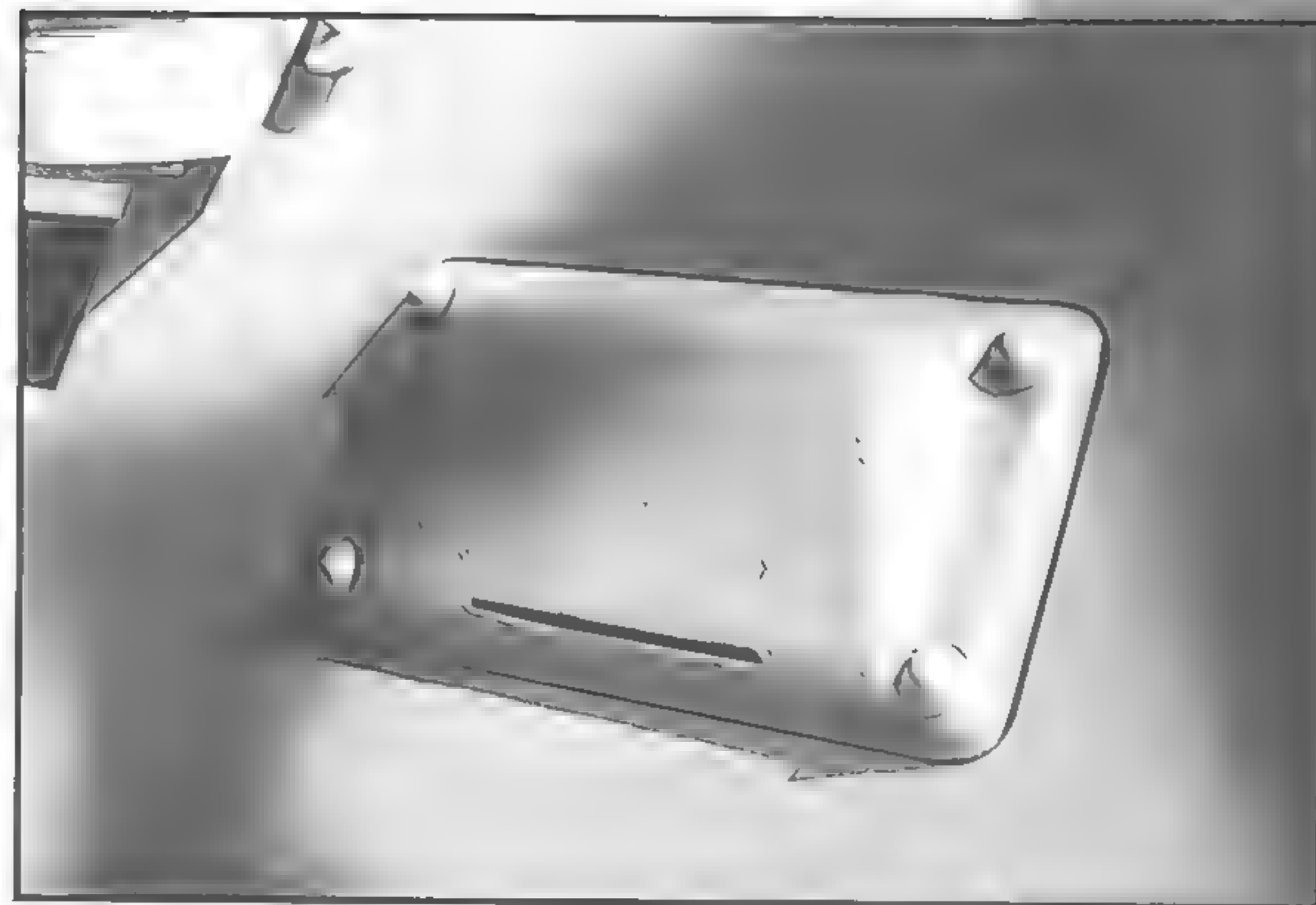
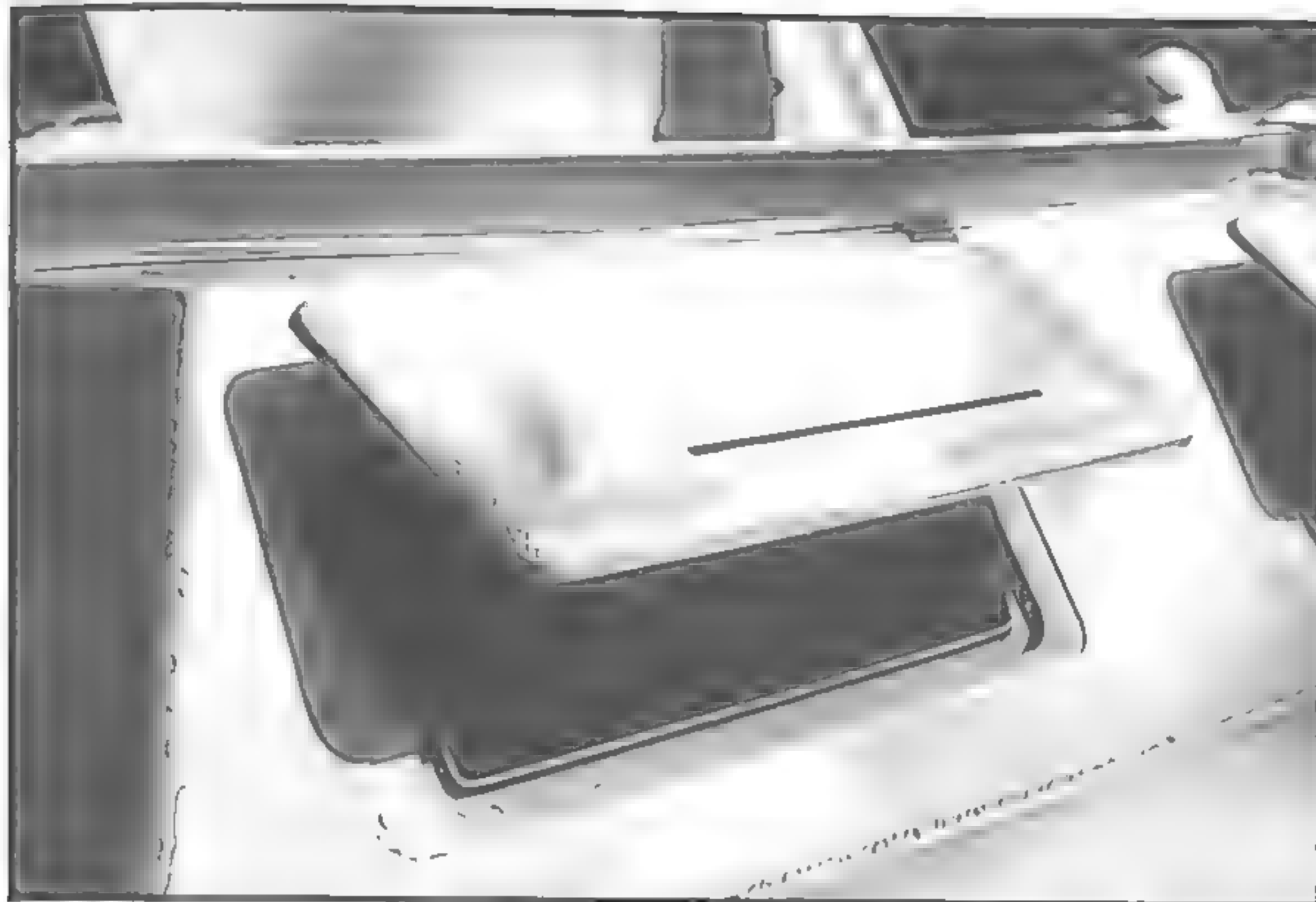


Top left: The left rear fender area showing the rear fender. **Top right:** The right rear fender. The right fender has a simple distance marker. **Bottom left:** Note the data plate on the back of the right side slowage. **Bottom right:** Above left and right: Overall views of the Maybach HL42TRKM engine as seen through the open

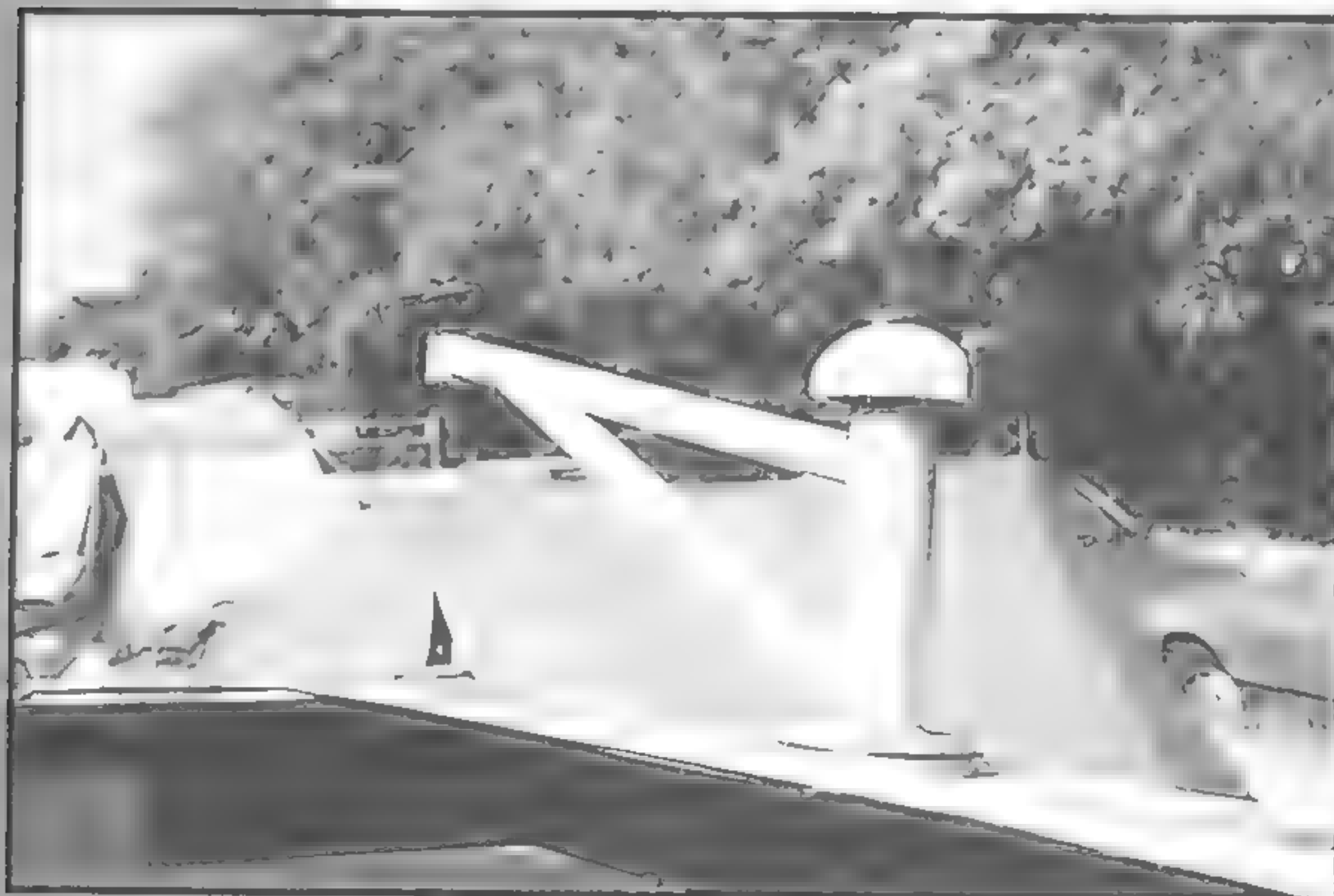
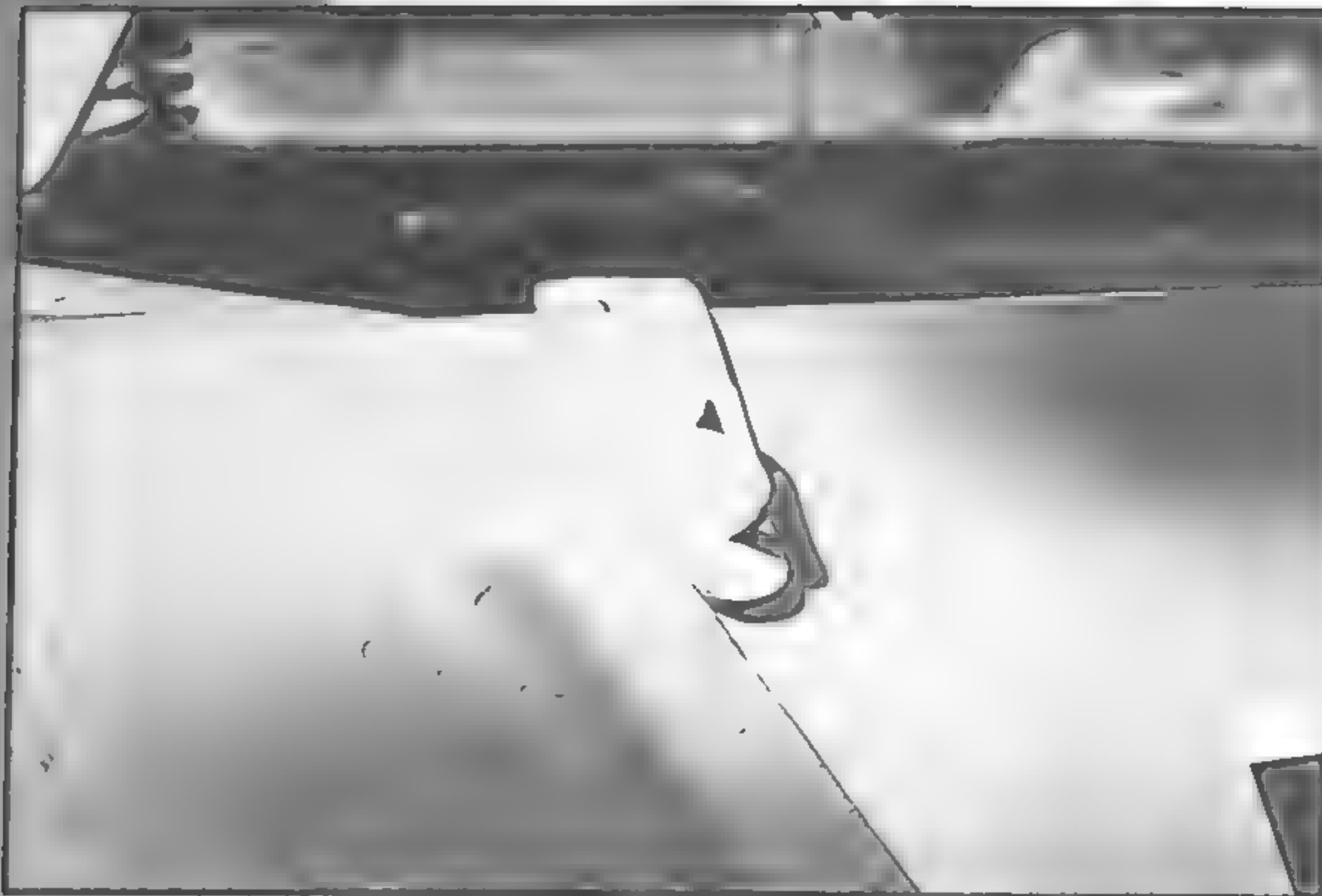
front access hatches. In the left hand shot the Sock two barreled carburetor can be seen and in the right hand shot the radiator hose and cooling system as are the vehicle horn and the top of the exhaust manifold



Top left The engine access hatch on the right side of the engine compartment. This shot provides a closer look at the Solex carburetor and the intake manifold. The top of the right side stowage box and the rear of the pick can also be seen. **Above left** These two grated openings provide ventilation for the engine and are located just in front of the driver's visor. **Above right** A close-up of the latching mechanism on the side engine access hatch.

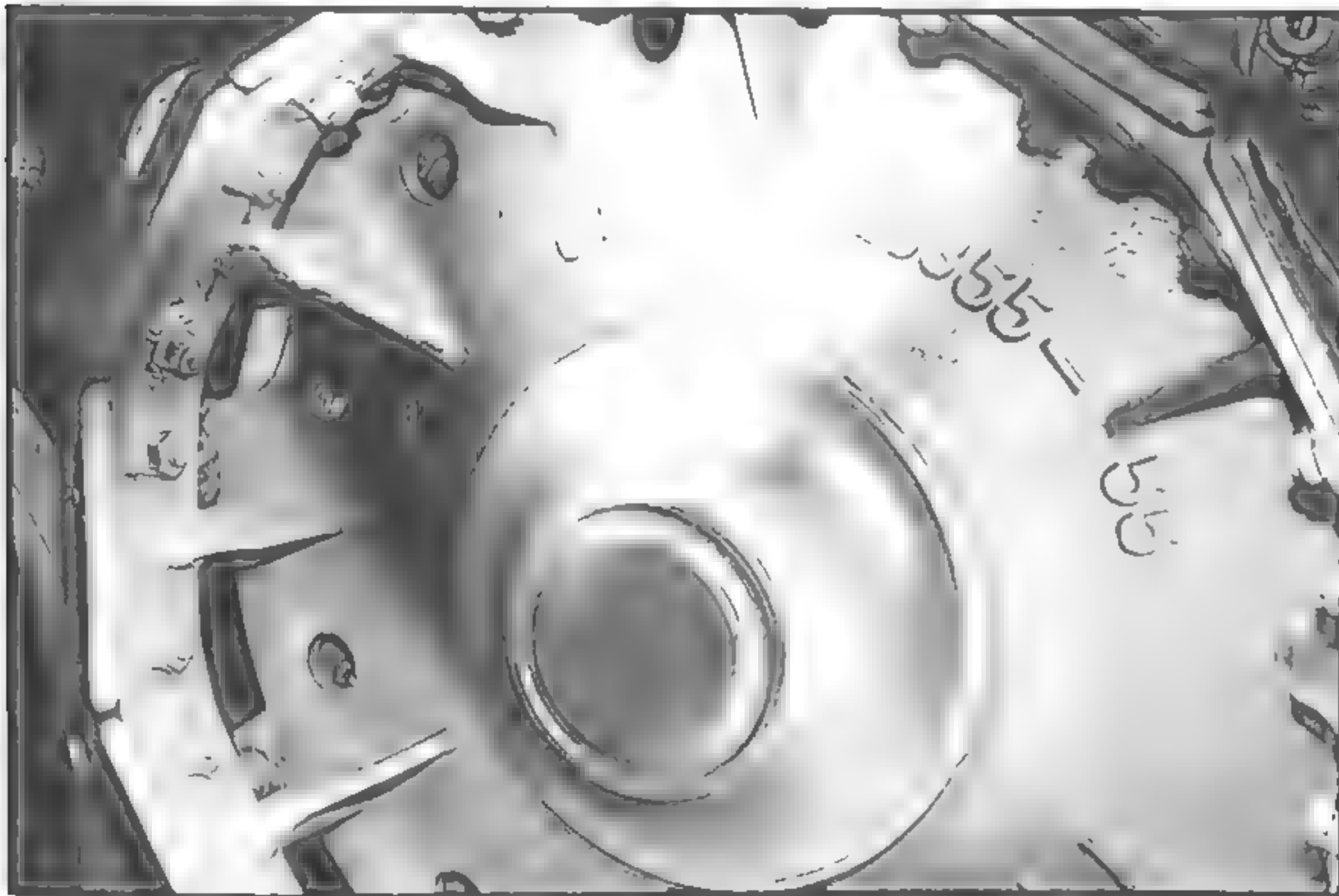
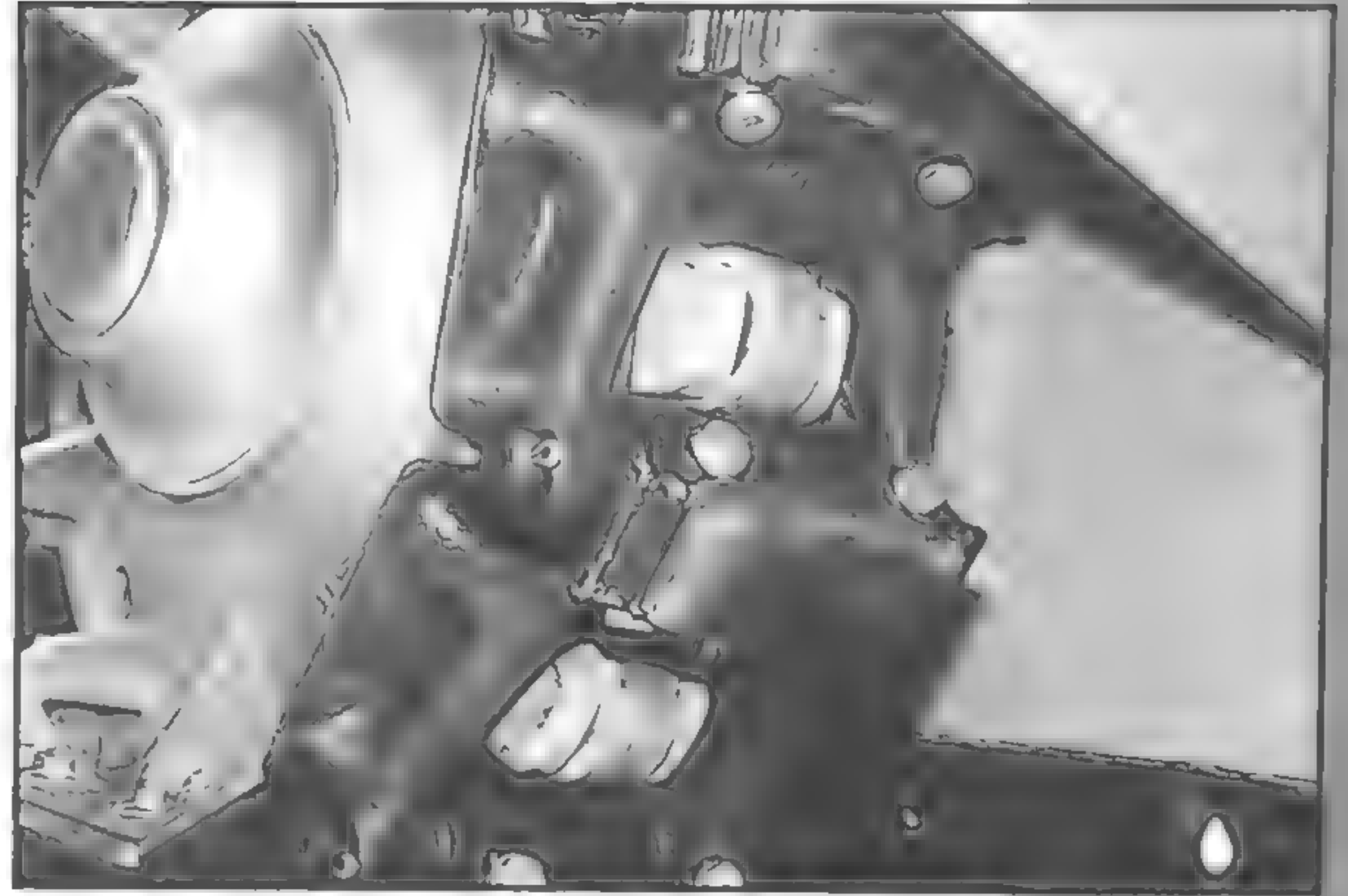
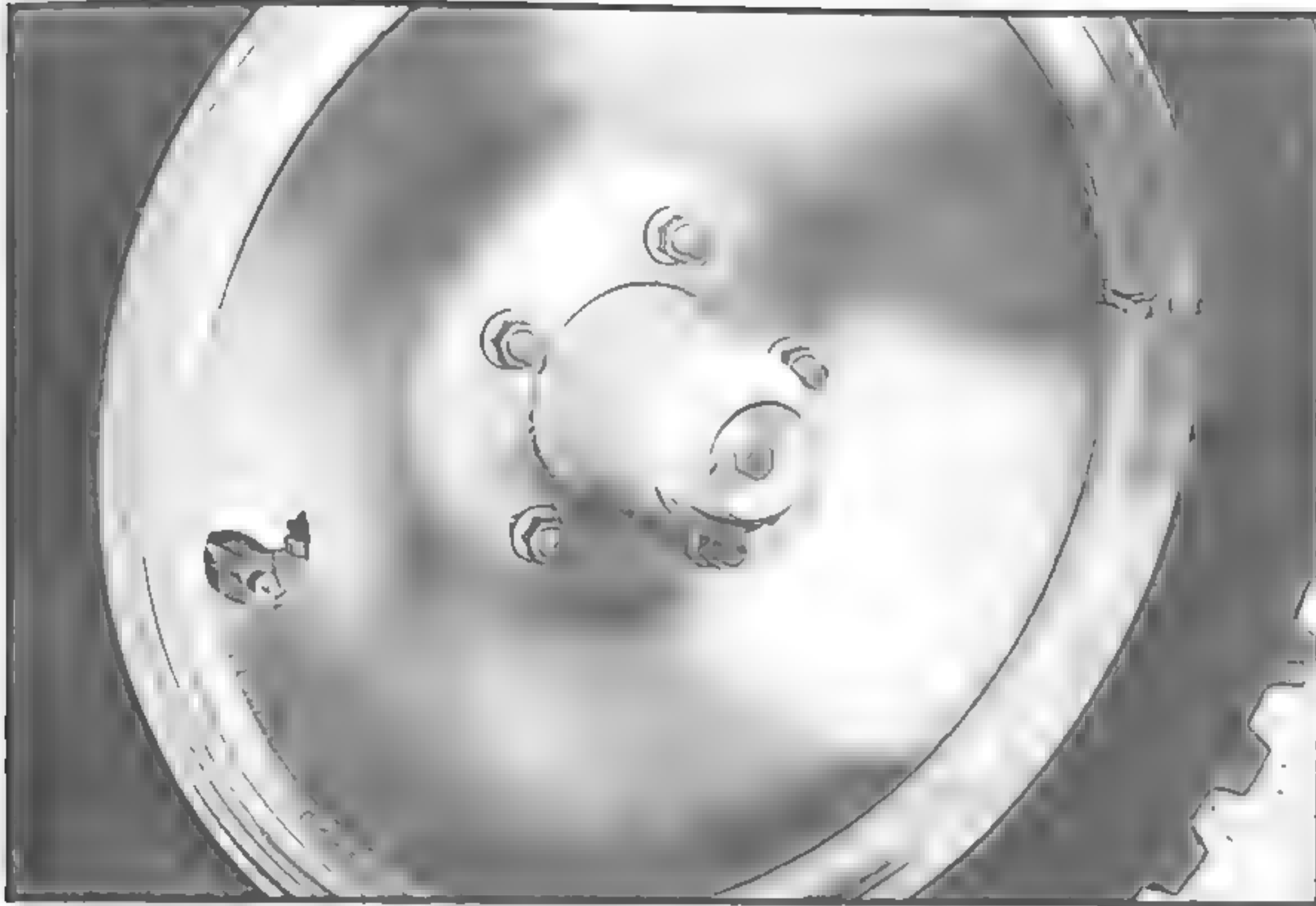


Top left: This is the radio operator's visor. It is a cast, armored piece and the opening is also fitted with armored glass
 Top right: The right side driver's visor. Note that the two side visors contain conical head bolts
 Above left: one of several tie-down points located on the periphery of the hull
 Above right: The antenna mount for the on-board FuG Spr 1
 The base of the antenna is wider than the type installed on Panzers and the rod itself is a two-part assembly

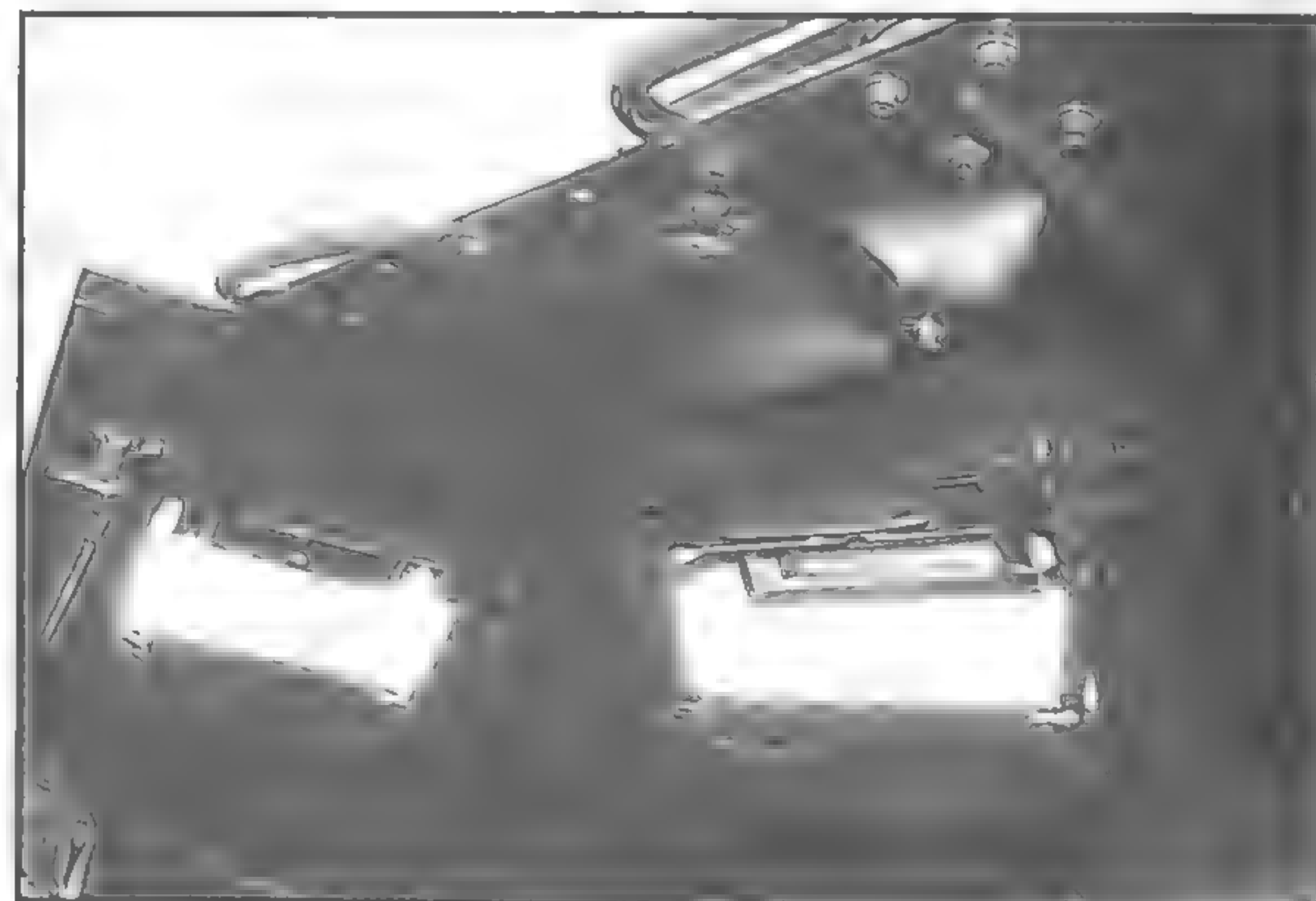
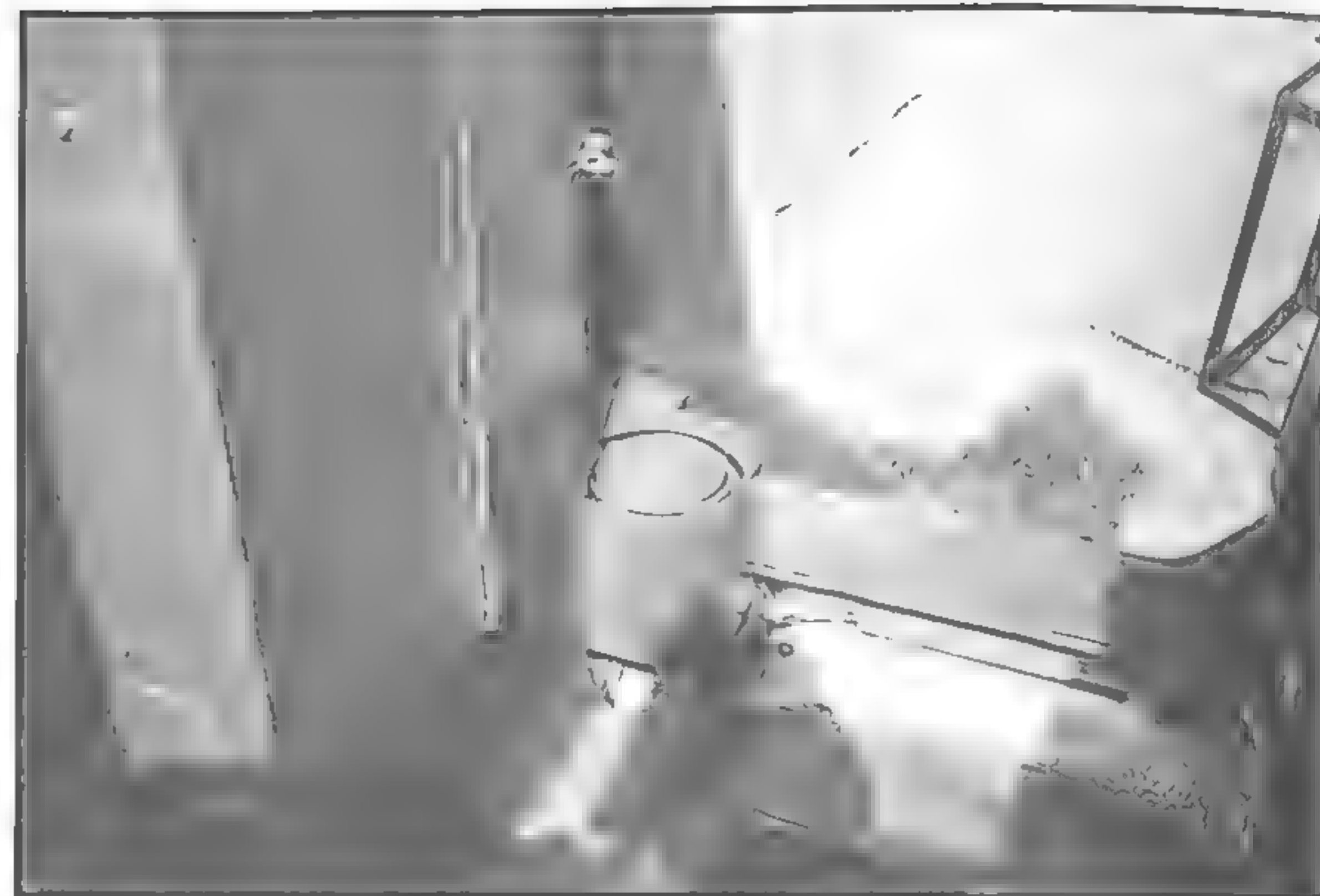


Top left: Another of the lifebuoys located around the top of the hull. **Above left:** This is the main entrance to the ship. The two MG mounts denote a 250 1 (s MG) which could be used to support half of the "Habgruppe". **Above right:** This very interesting structure is the main support for the rear mounted MG. It is installed on the top of the right side of the ship.



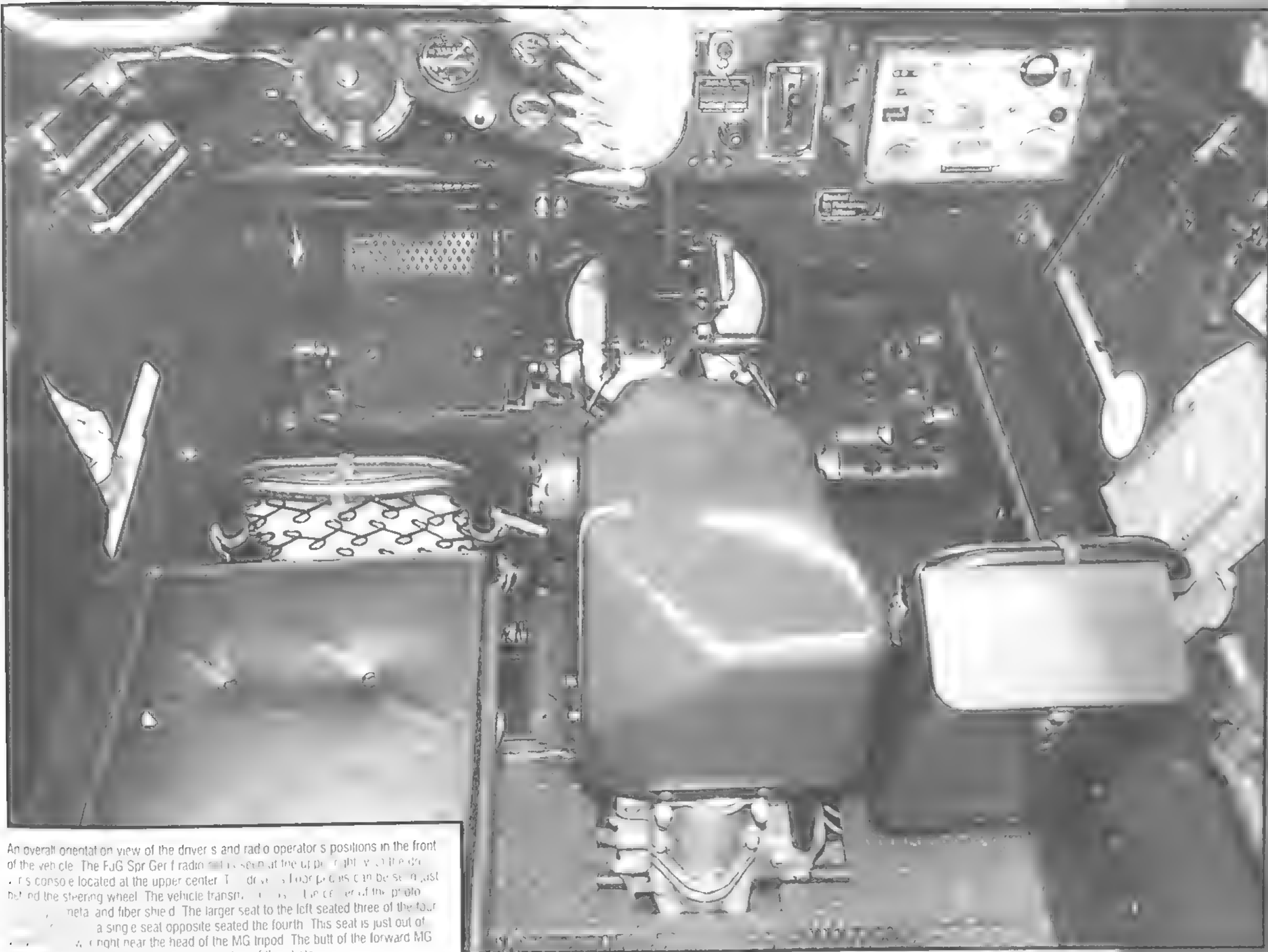


Top left: Both the front wheels were fabricated from light armored steel. The design was the common military split rim style. The air valve stem is seen at the left edge of the photo. **Top right:** A detail shot of the front drive sprocket. The length of the sprocket each contained a small wheel that moved as the tracks passed over it. **Above left:** The detail of the sprocket face including the interior bolts and the casting numbers. **Above right:** The interior of the rear door. The empty bracket was for the installation of the first aid kit.



Top left: The area above the driver's head, showing details of the visors and the head pad. Top right: The area near the door and looking out the window. Above left: The area near the door and looking out the window. Above right: The area near the door and looking out the window.

The area above the driver's head, showing details of the visors and the head pad. The area near the door and looking out the window. The area near the door and looking out the window. The area near the door and looking out the window.



An overall orientation view of the driver's and radio operator's positions in the front of the vehicle. The FuG Spr Ger I radio is seen at the upper right. The driver's console located at the upper center. The driver's floor pedals can be seen just behind the steering wheel. The vehicle transmission is in the center of the photo. The metal and fiber shield. The larger seat to the left seated three of the four crew members. A single seat opposite seated the fourth. This seat is just out of the frame. A right near the head of the MG tripod. The butt of the forward MG ammunition belt can be seen at the top of the photo.



In this photo, the driver's clutch and brake pedals can be seen at the lower right. Spare armored glass blocks for the visors are neatly stowed next to the steering wheel. There were two types of block and the more narrow style seen here is for the front visors. The three instruments seen at the upper right are (from largest to smallest) the speedometer, the oil pressure gauge and the voltmeter. Interestingly, the odometer reads 51,965 kilometers or 32,218 miles.



Taken from the perspective of the radio operator, this shot illustrates the stowage along the right side of the superstructure. An MP42, ammo pouch, glass blocks and traffic wand are all in evidence. The large tachometer is seen at the far left. The FuG Spr Ger f radio set is seen here in its original condition with all the placards and controls intact. The face of the radio is painted in ordnance tan. All of the placards are dark gray with white letters, with the exception of "Feind hört mit," which is red on a black background. This loosely translates as "the enemy is listening!"



Above: a closer look at the transmission and its controls. The transmission had seven forward speeds and three reverse. The number of gears made the tachometer an essential part of the driving operation! **Top right:** The forward MG shield and mount. This forward mount is unique in that it cradles both the center and the stock of the gun, making it an extremely stable platform for firing, even when the vehicle was moving. **Right:** the locker at the rear of the vehicle could hold twelve cans of MG ammunition, each of which contained five 50-round belts. These belts could be easily linked together for continuous fire.

